EL SEGUNDO AREA INTELLIGENT TRANSPORTATION SYSTEM (ITS) PROJECT

DELIVERABLES 3.1.1 & 3.1.3
DRAFT
STAKEHOLDERS OPERATIONAL OBJECTIVES REPORT & INDIVIDUAL STAKEHOLDER REPORTS

Submitted to

Los Angeles County Public Works Department

Submitted by

ITERIS

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The El Segundo Area ITS Project area is bounded by Interstate 105 (I-105) to the north, Hawthorne Boulevard to the east, Manhattan Beach Boulevard to the south, and Vista del Mar to the west. The arterial routes to be considered within the project area are Sepulveda Boulevard (State Route 1), Aviation Boulevard, Imperial Highway, El Segundo Boulevard, Rosecrans Avenue, and Manhattan Beach Boulevard.

The El Segundo Area ITS Project is a unique collaboration between public agencies and private partners for implementation of a multi-jurisdictional Advanced Traveler Information System (ATIS) / Advanced Traffic Management System (ATMS) / Traveler Information Center (TIC) for the El Segundo Area.

The focus of this deliverable is to identify potential stakeholders in this project and list their operational objectives as it relates to this project. In addition, existing and future conditions in the study area are identified.

Stakeholder Identification

During the Kick-Off Meeting on July 16, 2003, Los Angeles County Department of Public Works (LADPW) and Metropolitan Transportation Authority (MTA) staff in attendance discussed the list of stakeholders. In general, the primary stakeholders of this project have been identified as:

- Each city within the project study area: El Segundo, Hawthorne, Redondo Beach, Manhattan Beach, and Lawndale.
- The City of Inglewood due to the ITS activities currently taking place to the north and east of the study area.
- Federal, state, and regional public agencies: Los Angeles County Department of Public Works, Metropolitan Transportation Authority, Caltrans, South Bay Cities Council of Governments, and Federal Highway Administration.
- All members of the El Segundo Employers Association (ESEA).
- Large employers within the study area not members of the ESEA but identified by local city staff as potential stakeholders.

Table ES-1 provides a list of the meetings that have been held with the identified project stakeholders prior to production of this report.

It is envisioned that additional meetings may be required throughout the life of the project to present both current status and next steps within the process and to continue to gather stakeholder input.

Table ES-1:
Summary of the Stakeholder Meetings

Meeting Purpose	Meeting Date
South Bay Infrastructure Working Group	Wednesday July 23, 2003
Public Agency Stakeholder Group Meeting	Wednesday August 20, 2003
El Segundo Employers Association	Wednesday August 20, 2003
Individual meeting with City of Inglewood	Wednesday, August 27, 2003
Phone discussion with City of Hawthorne	Friday, August 29, 2003
Individual meeting with City of El Segundo	Tuesday, September 2, 2003
Individual meeting with City of Lawndale	Tuesday, September 2, 2003

Operational Objectives

The goals and objectives identified in the project stakeholder meetings to date include:

- Think globally, act locally – pay attention to external interfaces (with agencies outside the project boundaries).
- The study area should be expanded to capture those that live in other cities of the South Bay and work in the El Segundo study area (i.e. those that live in Torrance and commute to El Segundo for work).
- Services to be included in the early deployment projects should include access to:
  - Linking the MTA trip planner (http://mtaweb6.mta.net/) that provides an overall transit planning system regardless of the service provider (TransitView).
  - South Bay Cities Council of Governments (SBCCOG) traffic alert system. This map will also provide information (i.e. construction information and lane closures) provided by the utility companies
- Due to the many special events and tourist nature of the area, need to provide traveler information, particularly parking lot availability, on weekends or during special events in Redondo Beach and Manhattan Beach
- Sepulveda signal timing should be coordinated with Caltrans
- Deployment of all improvements within five years
- Focus on "segmental" improvements
- Provide solutions that are short, concise, and not complicated
- In order to cut down on emergency vehicle response time and improve homeland security, it would be important to inform the various City emergency staff (i.e. police, fire, ambulance, etc) of the El Segundo ITS Project and the early deployment projects.
- Hot spots or locations that require further review for improvements are:
  - Aviation and Sepulveda Boulevards – provide more CCTV cameras for surveillance.
  - Sepulveda Boulevard & I-105 as major access points to LAX
  - Vista del Mar
  - Rendondo Beach Avenue at Manhattan Beach Boulevard and at Marine Avenue
  - Marine Avenue
  - I-405 / Inglewood Avenue nterchange
  - The intersection of Rosecrans Avenue at Sepulveda Boulevard
  - I-405 / El Segundo Boulevard interchange
  - I-105 / Imperial Highway interchange (corporate centers)
  - Parking in Hermosa Beach (information system)
- Transit features to be considered for inclusion in TransitView:
  - Bus routes

  - Schedules
  - Map display location of bus
  - Coordinate different bus lines for passenger transfer using GPS locaters/transponders
  - Use transit kiosks for traveler information
- Need to develop a successful public outreach plan that would include:
  - Discussions with the local employers
  - Presentation(s) to the city councils
  - Development of brochures to distribute to the public
- Company newsletters and/or Intranet are ideal avenues to advertise traveler information services to the area employees.
- Provide traveler information to emergency services providers (i.e. ambulance, fire, police).
- Due to the nature of some of the businesses in the area (defense contractors) and national security concerns/regulations set forth by the Department of Homeland Security, there is high interest by the ESEA businesses to use the CCTV cameras deployed by the ITS project to provide closer surveillance of the area (including the roadways).
- The demonstration projects should include a few of the arterials such as Aviation Boulevard, Sepulveda Boulevard, and Rosecrans Avenue in order to capture a larger number of the employees that live and work within the study area.

The above operational objectives are considered to be in development and will be modified as needed throughout this project. The next step of the project will provide the functional requirements for each of the project components which will ultimately be developed into the Concept of Operations.

1.0 INTRODUCTION

The El Segundo Area ITS Project area is bounded by Interstate 105 (I-105) to the north, Hawthorne Boulevard to the east, Manhattan Beach Boulevard to the south, and Vista del Mar to the west. The arterial routes to be considered within the project area are Sepulveda Boulevard (State Route 1), Aviation Boulevard, Imperial Highway, El Segundo Boulevard, Rosecrans Avenue, and Manhattan Beach Boulevard.

The El Segundo Area ITS Project is a unique collaboration between public agencies and private partners for implementation of a multi-jurisdictional Advanced Traveler Information System (ATIS) / Advanced Traffic Management System (ATMS) / Traveler Information Center (TIC) for the El Segundo Area. The County of Los Angeles Department of Public Works (DPW) will serve as lead agency on behalf of public partners for administration of the public funding.

When completed, the project will provide freeway and arterial travel information to the traveling public in and out of the area comprising of the cities of El Segundo, Lawndale, Hawthorne, Manhattan Beach, and Redondo Beach. The region of interest consists primarily of the multi-jurisdiction arterials and freeways, such as: Sepulveda Boulevard, Aviation Boulevard, Imperial Highway, El Segundo Boulevard, Rosecrans Avenue, and Manhattan Beach Boulevard and I-405 and I-105 freeways.

The purpose of this report is to identify primary agency stakeholders and potential participating stakeholders and users and their operational objectives relative to the five major system components of the project and future ITS elements to be integrated into the system. **Figure 1.1** illustrates the project study area and study corridors.

Figure 1.1:
Study Area

2.0 STAKEHOLDER IDENTIFICATION

In all studies of this nature, stakeholders play a key role during all of the different project stages. First they are typically a good source to help in identifying current deficiencies within a specific corridor that are not transportation-specific. In addition to assisting with the identification of key issues and challenges, they also provide possible opportunities within the project area. Their input is typically gathered at key points within the project and is used in developing and refining specific alternatives. During the Kick-Off Meeting on July 16, 2003, Los Angeles County Department of Public Works (LADPW) and Metropolitan Transportation Authority (MTA) staff in attendance discussed the list of stakeholders. The following section provides a list of some of the private and public stakeholders that were identified.

2.1 Public Stakeholders

In general, the primary public stakeholders of this project include:

- Each city within the project study area: El Segundo, Hawthorne, Redondo Beach, Manhattan Beach, and Lawndale.
- The City of Inglewood due to the ITS activities currently taking place to the north and east of the study area.
- Federal, State, and regional public agencies: Los Angeles County Department of Public Works, Metropolitan Transportation Authority, Caltrans, South Bay Cities Council of Governments, and Federal Highway Administration.

Identified members from the above organizations are listed in **Table 2.1**:

Table 2.1:
El Segundo Area ITS Public Stakeholders

Agency	Staff Member
Los Angeles County Public Works	Jeffrey Pletyak
	Jane White
Metropolitan Transportation Authority	Robert Yates
Caltrans – D7	Peter Wong
	Fred Rabban
South Bay Cities Council of Governments	Jacki Bacharach
	Kim Fuentes
City of El Segundo	Bellur Devaraj
	Andres Santamaria
City of Lawndale	Blane Fransden
City of Redondo Beach	John Mate
	Steve Huang
City of Manhattan Beach	Erik Zandvliet
	Dana Greenwood
	Neil Miller
City of Hawthorne	Clinton Smith

Agency	Staff Member
	Charles Herbertson
City of Inglewood	Charng Chen
Torrance Transit & MAX Transit	Anthony Rose
FHWA	Jesse Glazer

Table 2.2 provides a list of the meetings that have been held with the identified public stakeholders prior to production of this report. A summary of the notes from each of the stakeholder meetings is provided in **Appendix A**.

Table 2.2:
Summary of the Public Stakeholder Meetings

Meeting Purpose	Meeting Date
South Bay Infrastructure Working Group	Wednesday July 23, 2003
Public Agency Stakeholder Group Meeting	Wednesday August 20, 2003
Individual meeting with City of Inglewood	Wednesday, August 27, 2003
Phone discussion with City of Hawthorne	Friday, August 29, 2003
Individual meeting with City of El Segundo	Tuesday, September 2, 2003
Individual meeting with City of Lawndale	Tuesday, September 2, 2003

It is envisioned that additional meetings may be required throughout the life of the project to present both current status and next steps within the process.

2.2 Private Stakeholders

In discussions with LADPW and MTA staff, primary private stakeholders identified include:

- All members of the El Segundo Employers Association (ESEA).
- Large employers within the study area not members of the ESEA but identified by local city staff as potential stakeholders.

On Wednesday August 20, 2003, Iteris staff, along with LADPW and MTA staff attended an ESEA meeting to discuss the El Segundo ITS project. Notes from this meeting are included in **Appendix A**. **Table 2.3** provides a list of the attendees of this meeting. It is envisioned that future ESEA meetings (i.e. ESEA Rideshare Group meetings) will be attended by Iteris staff.

Table 2.3:
El Segundo Area ITS Initial Private Stakeholders

Company/Agency	Attendees
Computer Sciences	Debra Hill
Continental Development Corp	Jerry Saunders
ESEA	Don Camph
Honeywell	William Mason
Mattel	Corinne Murat
Northrop Grumman	Kassidy Jones
	Todd Gerstemberger

There are a number of large employers located in the El Segundo ITS study area that can also be considered as stakeholders. **Table 2.4** provides a list of some of these employers and identified by City websites and discussions with individual city staff.

Table 2.4:
Major Employers within the Study Area (2002)

- The Boeing Company/Satellite Systems
- Raytheon Company
- Northrop Grumman Corp in El Segundo
- Aerospace Corporation
- Mattel, Incorporated/Sales Incorporated
- Xerox Corporation
- Hughes Electronics/DirectTV
- Chevron USA, Incorporated
- International Rectifier Corporation
- Electronic Data Systems (EDS)
- Accenture, LLP
- Infonet Services Corporation
- Computer Science Corporation
- TRW in Redondo Beach (now Northrop Grumman)
- Gate Gourmet c/o Dobbs International
- Candle Corporation
- MediaOne Express
- Tri-Star Electronics International, Inc.
- United Merchandising (Big 5)
- Team One Advertising
- Spectrum Club
- NCR
- Regal Rents
- Satco, Incorporated
- Oracle Corporation
- Japan Airlines

Source: City of El Segundo (http://www.elsegundo.org/business/businesses/)
Source: http://www.redondo.org/depts/planning/econdev/default.asp)

3.0 PROJECT OPERATIONAL OBJECTIVES

The El Segundo ITS Project will integrate the ATMS deployed by the South Bay Traffic Forum ITS project with an Advance Traveler Information System (ATIS) and Traveler Information Center (TIC) to acquire the traffic information generated by the ATMS. This project will augment the South Bay Traffic Forum ITS projects with additional field elements and/or expand coverage to other routes as needed for this project. The additional field elements and traffic signals will be integrated into each City's traffic control center (TCC) and, once deployed, will be operated and maintained by the local jurisdictions as provided in the South Bay Forum ITS project. The traffic information (data and video), which will be generated by the ATMS, will, at a minimum, include: vehicle counts, speed, lane occupancy, traffic incidents, congestion points, and construction activities. It is envisioned that this data, to the extent that it is available, will be accessible to the private sector partners for dissemination to the traveling public, public sector partners (i.e., LADPW, etc.), and private interest groups.

The public sector agencies will only be responsible for providing baseline traffic information (data and video), which is gathered as part of the LADPW-administered South Bay Traffic Forum ITS project. This data, as well as the data generated from the County's other regional traffic forum ITS projects (Gateway Cities and San Gabriel Valley), will be accessible from the South Bay IEN Corridor Server to be located in the South Bay sub regional TMC.

3.1 Public Stakeholder Operational Objectives

Public stakeholder operational goals and objectives identified after the first stakeholder meeting are:

- Think globally, act locally – pay attention to external interfaces (with agencies outside the project boundaries).

- The study area should be expanded to capture those that live in other cities of the South Bay and work in the El Segundo study area (i.e. those that live in Torrance and commute to El Segundo for work).

- Services to be included in the early deployment projects should include access to:
  - Linking the MTA trip planner (http://mtaweb6.mta.net/) that provides an overall transit planning system regardless of the service provider (TransitView).
  - South Bay Cities Council of Governments (SBCCOG) traffic alert system. This map will also provide information (i.e. construction information and lane closures) provided by the utility companies

- Due to the many special events and tourist nature of the area, need to provide traveler information, particularly parking lot availability, on weekends or during special events in Redondo Beach and Manhattan Beach

- Sepulveda signal timing should be coordinated with Caltrans

- Deployment of all improvements within five years

- Focus on "segmental" improvements

- Provide solutions that are short, concise, and not complicated

- In order to cut down on emergency vehicle response time and improve homeland security, it would be important to inform the various City emergency staff (i.e. police, fire, ambulance, etc) of the El Segundo ITS Project and the early deployment projects.

- Hot spots or locations that require further review for improvements are:
  - Aviation and Sepulveda Boulevards – provide more CCTV cameras for surveillance.
  - Sepulveda Boulevard & I-105 as major access points to LAX
  - Vista del Mar
  - Rendondo Beach Avenue at Manhattan Beach Boulevard and at Marine Avenue
  - Marine Avenue
  - I-405 / Inglewood Avenue nterchange
  - The intersection of Rosecrans Avenue at Sepulveda Boulevard
  - I-405 / El Segundo Boulevard interchange
  - I-105 / Imperial Highway interchange (corporate centers)
  - Parking in Hermosa Beach (information system)

- Transit features to be considered for inclusion in TransitView:
  - Bus routes
  - Schedules
  - Map display location of bus
  - Coordinate different bus lines for passenger transfer using GPS locaters/transponders
  - Use transit kiosks for traveler information

- Need to develop a successful public outreach plan that would include:
  - Discussions with the local employers
  - Presentation(s) to the city councils
  - Development of brochures to distribute to the public

3.2 Private Stakeholder Operational Objectives

Private stakeholder operational goals and objectives identified are:

- Company newsletters and/or Intranet are ideal avenues to advertise traveler information services to the area employees.

- Provide traveler information to emergency services providers (i.e. ambulance, fire, police).

- Due to the nature of some of the businesses in the area (defense contractors) and national security concerns/regulations set forth by the Department of Homeland Security, there is high interest by the ESEA businesses to use the CCTV cameras deployed by the ITS project to provide closer surveillance of the area (including the roadways).

- The demonstration projects should include a few of the arterials such as Aviation Boulevard, Sepulveda Boulevard, and Rosecrans Avenue in order to capture a larger number of the employees that live and work within the study area.

4.0 EXISTING CONDITIONS

The following section provides a brief description of the study areas existing conditions as it relates to the El Segundo Area ITS Project.

4.1 Study Corridors

The study corridors within the study area are summarized below. **Figure 4.1** provides an illustration of the study area with existing communication infrastructure and corridor average vehicles per day (VPD).

Sepulveda Boulevard: Sepulveda Boulevard is a north-south major arterial that provides three to four travel lanes per direction in the project vicinity. Sepulveda Boulevard is approximately 104 feet wide, including a 16-foot wide raised median. "No Parking" prohibitions are posted on Sepulveda Boulevard throughout the project vicinity, and left-turn channelization is provided at all major intersections. At the intersection of Sepulveda Boulevard and El Segundo Boulevard, dual left-turn lanes are currently provided in all directions except in the westbound direction.

Sepulveda between Imperial Highway and El Segundo Boulevard carries approximately 73,000 vehicles per day (VPD). Morning peak hour volumes are about 3,000 (vehicles per hour) VPH northbound and 2,000 VPH southbound, while afternoon peak hour traffic volumes are approximately 2,700 VPH southbound and 2,700 VPH northbound.

Aviation Avenue: Aviation Boulevard is a north-south arterial that provides two lanes of traffic in both directions through the project area. Left-turn channelization is also provided on Aviation Boulevard at most intersections. "No Stopping Any Time" prohibitions are posted on this roadway throughout the study area. A Metro Green Line transit exists at the southeast corner of Aviation Boulevard and Imperial Highway.

Aviation Boulevard between Imperial Highway and El Segundo Boulevard serves about 23,000 vehicles daily. During the a.m. peak hour, approximately 1,000 VPH travel northbound and 800 VPH travel southbound on Aviation Boulevard in the project vicinity. During the p.m. peak hour, nearly 1,300 VPH travel southbound and 1,400 VPH travel northbound on this roadway.

Imperial Highway: Imperial Highway is designated as a secondary arterial in the City of El Segundo and a major highway in the adjacent City of Los Angeles. It varies in width, but is generally 125 feet in the project vicinity. East of Sepulveda Boulevard, Imperial Highway provides three travel lanes in each direction, a 44-foot wide raised median island with left-turn channelization and bike lanes. "No Stopping" prohibitions are posted on this roadway throughout the study area. West of Sepulveda Boulevard, the roadway reduces to two lanes per direction.

Imperial Highway between Sepulveda Boulevard and Aviation Boulevard carries 29,000 VPD, with approximately 1,900 VPH westbound and 550 VPH eastbound during the a.m. peak hour, and 1,400 VPH eastbound and 900 VPH westbound during the p.m. peak hour.

El Segundo Boulevard: El Segundo Boulevard is an east-west arterial east of Sepulveda Boulevard, that extends west through the City of Hawthorne, terminating in the City of Compton. The major portion of El Segundo Boulevard is approximately 90 feet in width, with three lanes per direction and left-turn/or right-turn channelization at major intersections. Freeway access to the I-405 Freeway is provided along El Segundo Boulevard.

Figure 4.1:
Study Area Existing Conditions

El Segundo Boulevard between Sepulveda Boulevard and Aviation Boulevard carries more than 29,000 VPD. During the a.m. peak hour, approximately 850 VPH travel eastbound and 2,100 VPH travel westbound on El Segundo Boulevard in the project vicinity. During the p.m. peak hour, traffic volumes on this stretch of roadway are about 2,200 eastbound and 900 VPH westbound.

Rosecrans Avenue: Rosecrans Avenue is a north-south continuous major roadway which creates the boundary between El Segundo and Manhattan Beach. This roadway generally provides three lanes in each direction with turning lanes at most intersections. Rosecrans Avenue carries approximately 24,000 VPD. During the a.m. peak hour approximately 1,400 VPH travel westbound and 800 VPH travel eastbound on Rosecrans Avenue near Aviation Boulevard. Rosecrans Avenue carries approximately 1,200 VPH westbound and 1,500 VPH eastbound during the evening peak hour.

Manhattan Beach Boulevard: Manhattan Beach Boulevard is a west-east arterial. This roadway generally provides three lanes in each direction and carries approximately 23,000 to 35,000 VPD.

I-405 (San Diego Freeway): I-405 (San Diego Freeway) is a north-south freeway facility. It provides four travel lanes and one High-Occupancy Vehicle (HOV) lane in each direction between Los Angeles World Airport (LAX) and Hawthorne Boulevard. I-405 supports a heavy travel demand between residential areas and employment centers in the San Fernando Valley, West Los Angeles, LAX and into Orange County. In addition to supporting the daily commute trips, heavy evening and weekend travel demand is caused by travel to and out of County destinations to the north and south. Surface street ramp access is available on El Segundo Boulevard and La Cienega Boulevard north of El Segundo Boulevard. Daily traffic volumes on the I-405 freeway along this segment are approximately 280,000 VPD.

I-105 (The Glenn M. Anderson Freeway): The portion of I-105 freeway between Aviation Avenue and northern boundary of the project vicinity to the west of Hawthorne Boulevard is scoped into the project. It is an east-west freeway located above and adjacent to Imperial Highway. This with-lane facility, including a HOV lane traveling in each direction, connects LAX on the west, to the San Gabries River Freeway (I-605) and the City of Norwalk on the east. A full interchange has been built for its intersection with the I-405 freeway. Access to the I-105 can be taken from the I-405 or directly to/from Nash Street, Douglas Street, or Imperial Highway. Additional freeway ramps are available east of the I-405. Daily traffic volumes on I-105 freeway diminish towards its western terminus near Sepulveda Boulevard. Approximately 120,000 VPD travel this freeway between I-405 and Douglas Street, with volumes dropping to less than 90,000 VPD at Sepulveda Boulevard, and finally to less that 25,000 VPD west of Sepulveda Boulevard.

4.2 Mobility Plan / Transportation Circulation Plans

Circulation goals, objectives, and policies are presented as part of the circulation element for the cities involved in the study area to guide policy makers and city staff in the planning and provision of the cities' circulation systems. The goals, objectives, and policies were developed through consideration of existing circulation issues, projected circulation needs associated with the land use element, growth outside of the cities, and the interests of the residents and businesses. Each of the goals identifies the general direction for a city's circulation system. The objectives outline more specific circulation guidelines for the City's decision makers and staff to work toward. The implementation policies are recommended actions or policies that will assist the City in achieving the identified goals and objectives. In summary, the goals and objectives generally fall into the following categories:

- **Meeting Circulation Needs:** to provide a safe, convenient, and cost-effective circulation system to serve the present and future circulation needs of the community**.**

- **Provisions for Alternative Modes of Transportation:** to provide a circulation system that incorporates alternatives to the single-occupant vehicle, to create a balance among travel modes based on travel needs, costs, social values, user acceptance, and air quality considerations.

- **Coordinating with Neighboring Communities**: to develop a balanced General Plan, coordinating the Circulation Element with all other Elements as well as transportation modes of the neighboring communities, ensuring that the City's decision making and planning activities are consistent among all City departments.

- **Utilizing Advanced Technologies:** to provide a traffic management and information system to efficiently control and manage traffic.

Table 4.1 enlists selected general plan goals, objective and policies for some of the involved cities.

Table 4.1:
Selected General Plan Goals, Objectives and Policies for Involved Cities

General Categories of Goals	Objectives and/or Policies
Meeting Circulation Needs	**City of El Segundo:** Objective C1-1: Provide a roadway system that accommodates the City's existing and projected land use and circulation needs. Objective C1-2: Provide a circulation system consistent with current and future engineering standards to ensure the safety of the residents, workers, and visitors of El Segundo. **City of Manhattan Beach:** Objective 1: provide a balanced transportation system that allows the safe and efficient movement of people, goods, and services throughout the City. Policy 1.4: work with neighboring communities and other South Bay cities, as well as State and other agencies, to develop regional solutions to traffic problems which are regional in nature, and to mitigate impacts of development in neighboring communities that impact the City of Manhattan Beach. Policy 2.1: upgrade all major intersections and arterials streets to keep traffic moving efficiently.
Provisions for Alternative Modes of Transportation	**City of El Segundo:** Objective C2-3: Ensure the provision of a safe and efficient transit system that will offer the residents, workers, and visitors of El Segundo a viable alternative to the automobile. Objective C2-4: Ensure the use of Transportation System Management (TSM) measures throughout the City, to ensure that the City's circulation system is as efficient and cost effective as possible. Objective C2-5: Ensure the use of Transportation Demand Management (TDM) measures throughout the City, where appropriate, to discourage the single-occupant vehicle, particularly during the peak

General Categories of Goals	Objectives and/or Policies
	hours. In addition, ensure that any developments that are approved based on TDM plans incorporate monitoring and enforcement of TDM targets as part of those plans. **City of Manhattan Beach:** Policy 2.3: work with neighboring cities and regional and sub-regional agencies to widen and upgrade all major intersections and associated street segments within the City and adjacent jurisdictions to optimize traffic flow.
Coordinating with Neighboring Communities:	**City of El Segundo:** Objective C3-1: Ensure that potential circulation system impacts are considered when the City's decision makers and staff are evaluating land use changes. The City shall require submittal and implementation of a Transportation Management Plan (TMP) for all projects within the Urban Mixed-Use area, and shall encourage a TMP for all projects within the northeast quadrant. Objective C3-2: Ensure the consideration of the impacts of land use decisions on the City's parking situation. **City of Manhattan Beach:** Policy 1.5: investigate and encourage the use of alternative transportation systems such as intra/inter-city shuttle or trolley systems. Policy 2.5: encourage the use of the Neighboring Traffic Management Program and utilize neighboring traffic management tools to mitigate neighborhood intrusion by commuter traffic. **City of Redondo Beach:** • Provide a multimodal transportation system in the Specific Plan Area, so people will not need to rely on automobile to meet their travel needs. • Create a bicycle friendly environment, so that trips to and within the Specific Plan area can be made by bicycle. • Significantly improve transit services to the Specific Plan area to decrease automobile trips.
Goal C4: Compliance with all Federal, State, and Regional Regulations	**City of El Segundo:** Objective C4-1: Cooperate to the fullest extent possible with State, County, and regional planning agencies responsible for maintaining and implementing the Circulation Element to ensure an orderly and consistent development of the entire South Bay region. Objective C4-2: Ensure that the City's circulation system is consistent with those of neighboring jurisdictions. Objective C4-3: Establish the City's short-term (5-year) Capital Improvement Program (CIP) consistent with the Circulation Element and the entire General Plan, and ensure that the CIP incorporates adequate funding for the City's circulation needs.

General Categories of Goals	Objectives and/or Policies
Utilizing Advanced Technologies	**City of El Segundo:** Policy 2.4: encourage the use of Intelligent Transportation Systems (ITS), such as advanced signalization, motorists information, advanced transit, advanced emergency vehicle access, and intelligent parking systems, as well as other appropriate communication technologies, to direct through traffic.

Sources: 1. El Segundo General Plan – 1992
2. Manhattan Beach General Plan Update, August 19, 2002
3. FULL Heart of the City Specific Plan Document: Section of Circulation and Transportation Plan. City of Redondo Beach. March 2002

4.3 South Bay Traffic Signal Synchronization Project (Part I)

Twenty-three agencies were involved in this project which focuses on concept design of signal system improvements primarily on four identified major arterials (Pacific Coast Highway/Sepulveda Boulevard, Willow Street/Sepulveda Boulevard, Western Avenue and Hawthorne Boulevard) and several supporting corridors. Several improvement categories were identified including communication upgrade, traffic operations improvements, system wide coordination plan, strategies and implementation, surveillance, common time reference, computer interface/data sharing and Traffic Control Center. A 10-Year Plan was prepared addressing implementation phasing and a schedule.

4.4 Public Transportation

Several bus transit operators serve the El Segundo ITS Project area. These operators typically provide fixed route service into and out of, or through the project area. In addition to the bus service provided by the MTA, there are several municipal bus transit operators that also serve the project area. The MTA also operates the Metro Green Line, a light rail transit service that is part of a larger network of urban light and heavy rail lines that operate throughout the Los Angeles Basin area.

The following sections provide an overview of the various transit operators that provide service in the project area. **Figures 4.1** and **4.2** provide illustrations of the MTA and local transit routes in the study area, respectively.

Los Angeles County Metropolitan Transportation Authority (MTA)
The MTA operates the Metro Green Line, an urban light rail service with five stations, including the western termination point, in the El Segundo ITS Project area. Though the rail line has a mostly north / south orientation within the project area, overall, it is an east / west rail line with the eastern termination point in the City of Norwalk. Counting the two end points, there are 14 stations on the Green Line. The Green Line is part of the Metro Rail System of four currently operating rail lines. The Green Line intersects with the Metro Blue Line approximately 10 miles east of the project area. The Blue Line is a north / south rail line that connects downtown Long Beach with downtown Los Angeles. In downtown Los Angeles rail connections can be made to the Metro Red Line, which runs between downtown Los Angeles and the San Fernando Valley; and the Metro Gold Line, which connects downtown Los Angeles and Pasadena.

The MTA also operates several fixed route bus lines within the project area. **Table 4.2** is a summary listing of each of the routes serving the project area along with the primary directional orientation of the route and the primary street, or streets on which the route operates.

Figure 4.2:
MTA Transit Routes

Figure 4.3:
Local Transit Routes

Table 4.2:
Summary of all MTA Routes in the Study Area

MTA Route #	Primary Operational Direction	Primary Street(s)
40[1]	north / south	Hawthorne Blvd
119	east / west	Hawthorne Blvd / Lennox Blvd
120	east / west	Aviation Blvd / Imperial Hwy
124	east / west	Grand Ave / El Segundo Blvd
125	east / west	Grand Ave / Rosecrans Blvd
126	east / west	Manhattan Beach Blvd / Redondo Beach Ave / Marine Ave
215	north / south	Redondo Beach Ave / Inglewood Ave
220	north / south	Pershing Dr / Imperial Hwy / Sepulveda Blvd
225	north / south	Sepulveda Blvd / Continental Blvd / Aviation Blvd
232	north / south	Sepulveda Blvd
340[2]	north / south	Hawthorne Blvd
439[3]	north / south	Aviation Blvd / Imperial Hwy / Vista Del Mar / Highland Ave
442[3]	north / south	Hawthorne Blvd
625[4]	east / west	Pershing Dr / Imperial Hwy / La Cienega Blvd
626	clockwise loop	Nash St / El Segundo Blvd / Sepulveda Blvd / Imperial Hwy

[1] – local route to / from downtown Los Angeles
[2] – limited stop adaptation of Route 40
[3] – express route to / from downtown Los Angeles
[4] – shuttle service between the Aviation Green Line station and the LAX City Bus Center. Riders transfer at the LAX City Bus Center to LAX shuttle buses to get onto the airport property.

MTA Metro Rapid

The MTA Metro Rapid system has been deployed along six corridors in Los Angeles County. Several key attributes have contributed to Metro Rapid's success including a bus signal priority system, use of low-floor buses to reduce passenger boarding and alighting times, easy-to-recognize buses and stations featuring "next trip" displays and information kiosks, and "rail-like" operating characteristics. Similar to most light rail systems, Metro Rapid buses stop approximately every 0.8 miles at major cross streets as opposed to limited stop and local bus service in which buses stop approximately every 0.3 miles and 0.2 miles, respectively.

Corridors selected for the five-year Metro Rapid expansion plan (by 2008) include Florence, Van Nuys, Soto, Crenshaw-Rossmore, Pico, Santa Monica, Hawthorne, Long Beach Avenue, Hollywood-Fairfax-Pasadena, Western, Beverly, Vernon-La Cienega, Atlantic, Central, San Fernando-Lankershim, West Olympic, Garvey-Chavez, Manchester, San Fernando (south), Sepulveda (south), Torrance-Long Beach and Lincoln.

Total one-time capital costs for implementing the expansion are estimated at $110.5 million which will be used to construct 24 corridors with 356 miles of bus signal priority in 34 cities and 11 Los Angeles County unincorporated communities and to construct 779 Metro Rapid stations, all with "next trip" displays.

Municipal Area Express (MAX)

MAX is a South Bay Commuter Bus service administered by the City of Torrance and sponsored by the jurisdictions of El Segundo, Hermosa Beach, Lawndale, Los Angeles, Manhattan Beach, Rancho Palos Verdes, Rolling Hills Estates, Torrance, Lomita and Los Angeles County. Torrance Transit, also operated

by the City of Torrance, has a bus route (Route 8) that complements the MAX service by providing off-peak and evening service between both areas. MAX service operates Monday through Friday during the traditional morning and afternoon commute hours. MAX currently has three routes, which carry South Bay commuters from the Palos Verdes Peninsula, San Pedro and Torrance into the El Segundo Employment Center in the morning, and back out to the various starting points in the afternoon.

MAX Route 2 operates between the Palos Verdes Peninsula and the El Segundo project area, primarily along surface streets. MAX Route 3 operates between San Pedro and the El Segundo project area, primarily along surface streets. From the intersection of Manhattan Beach Blvd and Inglewood Ave to the intersection of Imperial Hwy and Douglas St, Routes 2 and 3 follow the same route along Freeman Blvd, Space Park Dr, Aviation Blvd, El Segundo Blvd, Continental Blvd, Sepulveda Blvd and Imperial Hwy. MAX Route 3x also operates between San Pedro and the El Segundo project area; however, Route 3x uses Interstates 110 (I-110) and 405 (I-405) for a significant portion of the route. The Route 3x service accesses the I-405 freeway at El Segundo Blvd. From the Intersection of El Segundo Blvd and Aviation Blvd Route 3x follows the same route as Route 2 and 3 to the intersection of Imperial Hwy and Douglas St.

DASH

The Los Angeles (City) Department of Transportation (LADOT) provides two commuter express routes through the El Segundo project area. The service operates under the "brand name" DASH, and is part of the larger DASH system of commuter express and community circulators operated by the LADOT throughout the Los Angeles City area. Both of the DASH commuter express routes that operate within the El Segundo project area provide limited runs, exclusively in the AM and PM peak periods on 20 to 30 minute headways. Route 438 provides service between Redondo Beach and downtown Los Angeles, primarily along Highland Ave and Vista Del Mar, on the western side of the El Segundo project area. Route 574 provides service between El Segundo and the Sylmar Metrolink Station. Route 574 operates mostly along Aviation Blvd, El Segundo Blvd and Sepulveda Blvd.

Torrance Transit

In addition to operating the MAX service, discussed above, Torrance Transit operates nine routes under the Torrance Transit brand name. Torrance Transit Route 8 provides weekday service between the City of Torrance and the LAX City Bus Center on 96th Street. This route compliments the MAX lines by providing continuous service between the South Bay and the El Segundo project area. Within the El Segundo project area, Route 8 operates along Aviation Blvd, El Segundo Blvd, Nash St, Douglas Blvd and Sepulveda Blvd. On weekdays, service runs generally between 5:00 am and 10:00 pm.

El Segundo Lunchtime Shuttle

The City of El Segundo provides a mid-day shuttle service connecting the major employment centers in the eastern portion of the City to the City's downtown core to the west. The basic operating hours are 11:30 am to 2:15 pm. The Grand Shuttle generally operates along Grand Ave with a loop around the downtown El Segundo area. The Imperial Shuttle basically is a loop route operating on Main St, Imperial Hwy, Nash St, Continental Blvd and Grand Ave. The Imperial Shuttle also makes the same loop around the downtown El Segundo area as the Grand Shuttle.

Lawndale Express

The City of Lawndale operates two fixed route bus routes serving key destinations within Lawndale. The service operates under the brand name the Lawndale Beat. The two routes are known as the Lawndale Express route and the Lawndale Residential route. They operate on approximately 40 to 50 minute headways, between the hours of 7:00 am and 6:00 pm. The majority of both of these routes operate

outside of the El Segundo project area. Within the project area, both routes operate along Marine Ave, serving the Redondo Beach Green Line station. Both routes also serve the Galleria at South Bay.

Culver CityBus
Culver CityBus, operated by the City of Culver City operates one bus route, Route 6, into the El Segundo project area. Route 6 operates between the University of California, Los Angeles and the Aviation Green Line Station, mostly along Sepulveda Blvd. Route 6 generally operates between 5:30 am and 10:00 pm seven days per week.

Santa Monica Big Blue Bus
Similar to Culver CityBus, the Santa Monica Big Blue Bus operates only one bus route, Route 3, into the El Segundo project area. Route also 3 operates between the University of California, Los Angeles and the Aviation Green Line Station, though along a different route from the Culver CityBus Route 6. The Big Blue Bus Route 3 generally operates between 5:30 am and 12:00 am seven days per week.

Gardena Transit
Gardena Transit operates four bus routes in and around the Gardena area. One of those routes, Gardena Transit Route 1, has a termination point in the far eastern end of the El Segundo project area, at Hawthorne Blvd and 147th St. This route terminus is in the vicinity of the Redondo Beach Green Line Station. Route 1 connects this termination point to the City of Gardena and then into downtown Los Angeles via Vermont Ave and the I-110 freeway. This service operates seven days per week.

Table 4.3 provides a summary of the operating characteristics of each bus route serving the project area.

Table 4.3:
Summary of the Operating Characteristics of Each Bus Route Serving the Project Area

Transit Service Provider Name	Route Number	Peak Period Headways	Off-Peak Period Headways	Weekend / Holiday Headways
Los Angeles County Metropolitan Transportation Authority (LACMTA, commonly known as MTA)	40	5 to 15 min	9 to 12 min	7 to 19 min
	119	50 to 70 min	60 to 65 min	No Service
	120	15 to 30 min	30 min	20 to 60 min
	124	30 to 60 min	60 min	60 min
	125	8 to 30 min	20 to 30 min	25 to 30 min
	126	50 to 70 min	60 to 65 min	No Service
	215	20 to 60 min	20 to 60 min	No Service
	220	60 min	60 min	60 min
	225	60 min	60 min	60 min
	232	8 to 20 min	30 to 60 min	30 to 60 min
	340	6 to 14 min	No Service	No Service
	439	35 min	30 to 60 min	60 min
	442	25 min	No Service	No Service
	625	20 min	No Service	No Service
	626	12 min	No Service	No Service
Municipal Area Express (MAX)	2	20 to 35 min	No Service	No Service
	3	25 to 35 min	No Service	No Service
	3x	20 to 60 min	No Service	No Service
	438	25 min	No Service	No Service

Transit Service Provider Name	Route Number	Peak Period Headways	Off-Peak Period Headways	Weekend / Holiday Headways
Los Angeles (City) Department of Transportation (LADOT) – DASH	438	25 min	No Service	No Service
Los Angeles (City) Department of Transportation (LADOT) – DASH El Segundo Lunchtime Shuttle	8	20 to 30 min	30 min	30 min
	574	25 to 30 min	No Service	No Service
	Grand Shuttle	No Service	9 min	No Service
	Imperial Shuttle	No Service	9 min	No Service
	Express	40 min	40 min	40 min
	Residential	50 min	50 min	50 min
Culver City Bus	6	10 to 12 min	15 min	20 to 60 min
Santa Monica Big Blue Bus	3	10 to 15 min	10 to 30 min	15 to 30 min
Gardena Transit	1	15 to 30 min	30 min	35 to 60 min

Paratransit Services

Paratransit services are typically defined as demand responsive transit, usually "curb to curb", for the elderly and disabled. As a general rule, certain eligibility requirements for personal mobility needs and residence location must be met. Paratransit services in Los Angeles County are provided by several public agencies, as well as private non-profit entities. However, there is one overarching agency that provides the majority of paratransit services for Los Angeles County called Access Services.

Access Services was established by thirty-eight public fixed route transit operators in Los Angeles County. It is governed by a seven member board appointed by the Los Angeles County municipal fixed route operators, the Los Angeles County local fixed route operators, the City of Los Angeles, the County of Los Angeles, the Transportation Corridor Representatives of the Los Angeles branch of the League of Cities, the Los Angeles County Commission on Disabilities, and the Coalition of Independent Living Centers.

The primary mission of Access Services is to provide Americans with Disabilities Act (ADA) mandated paratransit services for people with disabilities who are unable to use public fixed route transportation systems and to coordinate various paratransit operators within Los Angeles County to provide efficient and cost effective paratransit services. Access Paratransit operates seven days a week, 24 hours a day in most areas of Los Angeles County. It is a shared ride service that operates curb-to-curb and utilizes a fleet of small buses, mini-vans and taxis. Fares are distance-based and range from $1.80 to $2.70 for each one-way trip.

Access Services provides paratransit service in the El Segundo project area. Numerous private non-profit social service agencies also provide paratransit service in the El Segundo project area. Additionally, the following public agencies also provide limited, more localized, paratransit services within the El Segundo project area: the City of Lawndale, the City of Manhattan Beach, the City of Redondo Beach, and the City of Hawthorne. Finally, other local public agencies surrounding the El Segundo project area, such as the City of Torrance, and the City of Gardena, among others, also provide limited paratransit services between their own respective service areas and the El Segundo project area. Most of these localized paratransit services serve a very limited geographic region, usually within their own respective jurisdictions and to and from a limited number of destinations outside their own respective jurisdictions.

Dial-a-Ride Services

For the purposes of this report, Dial-a-Ride services have been segregated from paratransit services as any demand responsive transit service that is normally available to the general public at large and not targeted

at the elderly and disabled. Because of the limited availability of transit operating funds for public agencies, Dial-a-Ride services are relatively rare. In the El Segundo project area the City of El Segundo (El Segundo Dial-a-Ride) and the City of Redondo Beach (The WAVE). These dial-a-ride services are sometimes operated and adjusted seasonally as appropriate.

4.5 Major Activity Centers

Roadways and intersections in close proximity to major traffic generators should accommodate a very high volume of traffic flow during a short period of time. Monitoring these locations will help in identifying special traffic management strategies to alleviate the traffic congestion. As a result, it is critical to identify the major activity centers that generate large number of vehicle trips in the study area. **Figure 4.3** provides an layout of the major activity centers in the study area. Below is a short list of some of these special generators in the El Segundo ITS Project study area:

- Alondra County Golf Course
- Centinela Hospital (Inglewood)
- Continental Development Center (i.e. P.F. Chang's, McCormick and Schmick, Cozymel's, Fleming's, etc)
- Del Amo Fashion Center
- Downtown El Segundo (Main Street)
- Downtown Manhattan Beach
- Hawthorne Municipal Airport
- Hawthorne Plaza
- Hermosa Beach
- Hollywood Park (Inglewood)
- Inglewood Forum
- Los Angeles International Airport
- Manhattan Beach
- Manhattan Beach Pier at the end of Manhattan Beach Boulevard
- Manhattan Marketplace (i.e. Bristol Farms, Old Navy, REI, etc)
- Manhattan Village
- Marriott Golf Course
- Oceangate Commerce Center
- Old Town Music Hall, El Segundo
- Pier Avenue in Manhattan Beach
- Redondo Beach Performing Arts Center
- Rosecrans/I-405 (Costco, Bed, Bath & Beyond, Home Depot, Kids R US, etc.)
- The Galleria at South Bay
- The Lakes at El Segundo Golf Course

Figure 4.4:
Major Study Area Activity Centers

5. FUTURE CONDITIONS

In order to have a complete understanding of the study area, various other projects and studies in the area were studied. This section of the report provides a summary of these roadway enhancements as it pertains to the El Segundo ITS project.

5.1 Future Roadway Capacity Enhancements

Table 5.1 provides a summary of the study area's planned and proposed roadway capacity improvements. **Figure 5.1** provides an illustration of the major future roadway capacity enhancements.

Table 5.1:
Summary of Planned and Proposed Roadway Capacity Enhancements

Jurisdiction	Name of Project
El Segundo	Conversion of the Nash Street / Douglas Street one-way couplet to a two way system (Between El Segundo Boulevard & Imperial Highway)
El Segundo	Aviation Boulevard Widening (Between Rosecrans & Imperial Highway - widen lanes)
El Segundo	Aviation Blvd/ Rosecrans Ave Intersection Improvements (intersection upgrade, left turn lane added)
El Segundo	Rosecrans Ave Corridor Improvements (various intersections - widening, intersection upgrades)
El Segundo	Douglas Street gap closure/ Railroad grade separation project (Connecting both sides of Douglas Street)
Lawndale	Marine Ave Improvements Resurfacing from 405 to Prairie
Lawndale	Manhattan Beach Boulevard Improvements (2000/01) from Inglewood to Prairie - reconstruction of street, insulation of landscape medians, street lighting and upgrade of traffic signal at Freeman and Manhattan Beach
Lawndale	Street Pavement Rehabilitation (PMS) - various locations citywide
Lawndale	Manhattan Beach Boulevard Improvements (2001/02) construction
Lawndale	Hawthorne Boulevard Refurbishment (2000/01) revitalization project - $12 million Rosecrans and Redondo Beach Blvd. reconstruction, signal synchronization, new landscape medians, and trees
Lawndale	Hawthorne Boulevard Refurbishment (2001/02) - see description above
Lawndale	166th Street Intersection Widening @ Hawthorne Boulevard
Lawndale	City Hall - local match program - 153rd Street Rehabilitation Hawthorne to 200 feet of Freeman Avenue - street reconstruction, sidewalk repair street and gutter
Lawndale	City Hall - local match program - 153rd Street Rehabilitation Hawthorne to 200 feet of Freeman Avenue - street reconstruction, sidewalk repair street and gutter
Manhattan Beach	Aviation Boulevard Resurfacing (Manhattan Beach Boulevard to Artesia)
Manhattan Beach	Highland Avenue Overlay (15th Street to 45th Street)
Manhattan Beach	Dual Left Turns - Manhattan Beach Boulevard (at Sepulveda)
Manhattan Beach	Dual left Turns - Sepulveda (at Manhattan Beach Boulevard)
Manhattan Beach	Dual Left Turn - Marine Avenue (at Sepulveda)
Manhattan Beach	Sepulveda Corridor Improvements - Phase II (Between Artesia & Rosecrans)
Manhattan Beach	Rosecrans Widening and Utility Undergrounding (Between Sepulveda & Aviation)

Figure 5.1:
Future Study Area Roadway Capacity Enhancements/Studies

Jurisdiction	Name of Project
Redondo Beach	PCH/Catalina Intersection Improvement - additional lane, southbound right turn only lane
Redondo Beach	Manhattan Beach Blvd/Inglewood Ave - left turn lane extension
Redondo Beach	Inglewood Avenue Freeway Access Improvement at 405 freeway on and off ramps - study phase
Redondo Beach	PCH South Bound Lane - 190th/ Beryl St. - adding a third southbound lane
Redondo Beach	High Lane Traffic Improvements - various improvements
Redondo Beach	Bus Bench and Shelter Replacement - various locations city wide

Source: 2002 South Bay Portfolio Update

5.2 South Bay Signal Synchronization and Bus Speed Improvements Plan

The following is a summary of the South Bay Signal Synchronization and Bus Speed Improvements Plan, Part II and III. The focus of the project area is the entire South Bay, in which the El Segundo ITS Project is a subset of. **Figure 5.2** provides an illustration of the proposed ITS improvements identified as part of Part II and III of the South Bay project.

The South Bay Traffic Signal Synchronization and Bus Speed Improvements Plan includes the development, design, and implementation of a series of transportation system improvements on the arterial highways in the South Bay area. The objective of this project is to provide seamless travel across jurisdictional boundaries and reduce congestion. The South Bay Traffic Signal Synchronization and Bus Speed Improvements Project, the development of which is being administered by the County of Los Angeles Department of Public Works (LACDPW), has been divided into three parts:

- Part I: Part I consists of the design and construction of intersection operational improvements, and is being performed by the LACDPW;
- Part II: Part II consists of the development, design, and implementation of an area wide traffic monitoring system and communication networks, and is being performed by a team of consultants led by Meyer, Mohaddes Associates, Inc. (MMA); and
- Part III: Part III consists of the development, design, and implementation of Traffic Signal Management and Control Systems (TSMACSs), an Advanced Traveler Information System (ATIS), Sub-Regional Transportation Management Centers (SRTMC), and local Traffic Control Centers (TCCs), and is being performed by a team of consultants led by PB Farradyne Inc. (PBF).

The Project encompasses a large urbanized area within Los Angeles County and involves 17 cities, the State of California Department of Transportation (Caltrans); the Los Angeles County Metropolitan Transportation Authority (MTA); the El Segundo Employers Association (ESEA), a consortium of local cities and businesses in the vicinity of the El Segundo employment center; and the County of Los Angeles.

5.3 Other Regional Studies/Future Enhancements

The following is a list of some of recently completed studies in the project area that were reviewed as part of this deliverable.

Figure 5.2:
Proposed South Bay ITS Improvements (South Bay ITS Project, Part II & III)

Los Angeles Air Force Base Land Conveyance, Construction and Development Project (Final EIS/EIR):

Activities comprising the Proposed Action generally include the following:

(1) Conveyance of properties which are to be vacated by the Air Force (Area A and Lawndale Annex) and other land currently owned by LAAFB (Sun Valley property) to a private developer;
(2) Construction of new seismically-safe, state-of-the-art facilities for the Air Force on Area B in exchange for the conveyed parcels;
(3) Relocation of existing functions into the new facilities on Area B; and
(4) Development of the conveyed land by the private developer, which could include the following activities:
    a. Detachment of a portion of the conveyed land from the City of El Segundo and annexation of this land into the City of Hawthorne; and \
    b. Granting of land use entitlements, permits and other discretionary actions by the City of Hawthorne to permit the private development of the conveyed land, or, alternatively, granting of land use entitlements, permits and other discretionary actions by the City of El Segundo to permit development of the conveyed land4

For purposes of CEQA, the objectives of the proposed project, as set forth by the Cities of El Segundo and Hawthorne, are as follows:

- To relocate the LAAFB facilities currently on Area A (including the Space and Missile Systems Center ("SAMS")) from facilities in severe disrepair which do not meet current building codes for fire and earthquake safety to a new state-of-the-art facility which will generate approximately $3.5 million in annual operations and maintenance savings for the Air Force on Area B;

- To achieve the goals of recently-enacted special federal legislation allowing the Air Force to fund its relocation by conveying land for the development of new facilities for the Air Force on Area B;

- To provide development on Area A and the Lawndale Annex at a density sufficient to assist in addressing the $65 million gap between the value of the Air Force's conveyed land and the cost of constructing new facilities for the Air Force on Area B.

Coastal Corridor Transportation Study:

The following mission statement was adopted for this project:

- In cooperation with local jurisdictions, the Los Angeles World Airports, federal, state and regional transportation agencies, and business and community stakeholders, seek to identify multi-modal strategies for improving groundside access to LAX and for enhancing the compatibility of the LAX Activity Center with other activity centers and with the functioning of the transportation system in the Coastal Corridor.
- Facilitate coordination of corridor or area-specific traffic and transportation improvement planning, funding and implementation activities within the Coastal Corridor so as to reduce the impact of traffic on the quality of life in communities and neighborhoods.

The pressures for growth and development throughout the Westside cities and South Bay area have triggered an interest in analyzing transportation issues beyond that of LAX ground access. As a result, the working group expanded its responsibilities to include an analysis of future conditions that will identify deficiencies and concerns due to growth throughout the Coastal Corridor. The working group

came to the conclusion that it would be desirable to develop a comprehensive and cohesive multi-modal transportation improvement plan that addresses the changes anticipated in the area.

Ultimately, the goal is to develop a Strategic Action Plan that:

- Identifies current and future deficiencies in the multi-modal transportation system within the corridor; and,
- Recommends consensus-based solutions (including required strategies) to address those deficiencies.

The purpose of the Coastal Corridor Transportation Study is to prepare a Strategic Action Plan that resolves potential deficiencies in the multi-modal transportation system by identifying short-term and longer-term transportation improvements, estimating the costs associated with these improvements, prioritizing the improvements into logical/functional groupings, and preparing a staged implementation plan. The overall study tasks include data collection and assembly, analysis of transportation conditions and deficiencies, identification of short- and longer-term improvements to address the deficiencies, assessment of their effectiveness, and recommendation of an overall strategic plan in the following three phases:

- Phase I of this study was directed at the identification of data needs, the assembling of available data, identification of the data gaps, reviewing existing land use data, and creating a database to store this key information to be utilized in the Phase II of this study.
- Phase II of the study includes: the completion of the data collection; review and identification of the critical issues in the corridor; and a review of potential travel demand forecasting techniques to be used in this phase. It also includes: recommendations for a proposed methodology; conducting a capacity analysis of the transportation system in the study area; identifying system deficiencies; developing an initial list of transportation system improvements; and preparation of a list of recommended transportation improvement projects for the study area.
- The results of Phase II will serve as the basis for the Phase III of the Coastal Corridor Study. This phase involves the preparation of the Strategic Action Plan.

The study area for Phase II is bounded by the Santa Monica (I-10) Freeway to the north, Pacific Ocean to the west, PCH to the south and to the east by La Brea Avenue, Slauson Avenue, Van Ness Avenue, the Glenn Anderson (I-105) Freeway and Western Avenue. This study area consists of all or part of thirteen cities with significant commercial developments that have undergone major changes over the past decade and residential neighborhoods that generate some of the highest values in the metropolitan area. These include major employment centers in El Segundo, Torrance, Santa Monica, Inglewood and West Los Angeles; tourist destinations like the beaches, Marina del Rey, Hollywood Park and Casino and the Forum; major shopping destinations; and educational facilities and Los Angeles International Airport (LAX). Proposed new developments including the Playa Vista Master Plan Project, expansion of the Howard Hughes Commercial & Entertainment Project, and the Marina Del Rey Local Coastal Plan Phase II will all place additional strain on the transportation system within the study area.

Rosecrans Corridor Strategic Initiative:

The intent of the Rosecrans Corridor Strategic Initiative (RCSI) is to quantify the magnitude of improvements needed within the corridor and allow the South Bay Cities Council Of Governments (SBCCOG) to compete for future funding through the Los Angeles County Metropolitan Transportation Authority (LACMTA) Call for Projects.

The Rosecrans Strategic Initiative, Phase 1 (Kaku Study) report prepared November 9, 2000 evaluated current and near-term, 2000-2001, conditions along Rosecrans Avenue from Hawthorne Boulevard to Sepulveda Boulevard and identified the expected benefits of on-going transportation projects. Goals for Phase 1 were:

- Phase 1 Goal #1: Monitoring and assuring completeness of funded improvements in the corridor. Among these projects
- Phase 1 Goal #2: Preparing the documents necessary over the next four years for the LACMTA Call for Projects.
- Phase 1 Goal #3: Pursuing longer-term (and more expensive) improvements along the corridor.
- Phase 1 Goal #4: Producing a comprehensive corridor strategy (Phase 2) and find the resources to implement it. This study will look more closely at I-405 and other roadways that contribute to congestion along Rosecrans Avenue.

In Phase 2, presents the identification of system deficiencies at the study locations and along the corridor as a whole and future 2027 Level of Service (LOS) analysis with improvements. By completing the LOS analysis, alternatives were developed and incorporated into the SimTraffic traffic model, then analyzed. A list of improvement projects were determined based on the outcome of the technical analysis. A list of improvement alternatives are then identified that can support the long-range plan for the Rosecrans corridor. The list of improvements includes signal changes, operational, channelization and access control changes, capacity improvements and transit related actions.

The recommended projects that result from mitigating the future 2027 traffic scenario are then used by the South Bay Cities Council Of Governments (SBCCOG) to help the jurisdictions prepare Project Study Report Equivalents (PSREs) and apply for future funding through the Los Angeles County Metropolitan Transportation Authority (LACMTA) Call for Projects.

I-405 Improvement Study:

The I-405 Arterial Improvement Planning Studies focus on accessibility, traffic circulation, and congestion at the South Bay I-405 freeway interchanges. Three specific areas reviewed in more depth are at the La Cienega, Inglewood Avenue and Crenshaw Boulevard access points. This is an ongoing effort to improve mobility and travel conditions within the South Bay on our major streets which access the freeway. Beneficiaries will be not only local residents, businesses, patrons, and visitors, but also regional travelers. Congestion on South Bay streets is backing up onto the freeway; similarly, freeway traffic backs up onto the arterials. Improvements to the arterial connections to this freeway facilitate better access to the freeway, reduce or relieve congestion on the freeway and arterial segments, and contribute to a better economy. Potential improvements include freeway ramp widening, various intersection modifications, arterial street widening, ramp access modifications, and freeway operational improvements such as auxiliary lanes.

Caltrans District 7 Traffic Operations Strategies Implementation Report:

This Traffic Operations Strategies (TOPS) Implementation Report (Report) has been prepared in response to the development of a statewide plan for the State of California Department of Transportation (Department) to improve the overall operation of the State transportation system. This effort is highly consistent and complimentary with the Governor's Traffic Congestion Relief Program (TCRP), where the Governor has committed over $8 billion toward transportation improvements that will ease traffic congestion. This Report presents an implementation plan that is consistent with the TOPS as described below.

- TOPS represent an operation-centered approach that produces significant benefits for relatively small costs compared to traditional State Transportation Improvement Program (STIP) projects.
- TOPS address congestion problems by utilizing all available tools to effectively operate the State freeway system at maximum efficiency through better system management, especially on the congested corridors.
- TOPS address all modes of transportation and the demand side of transportation in a comprehensive manner. TOPS will also work as a team with local agencies to make the arterial system an attractive alternative to the freeway system. Such local agencies include, but are not limited to, the Southern California Association of Governments (SCAG), Los Angeles County Metropolitan Transportation Authority (MTA), and Ventura County Transportation Commission (VCTC).
- TOPS focus on four elements: completing the intelligence component of the highway system, mitigating bottlenecks at on-ramps, off-ramps, or along the system, achieving high occupancy vehicle (HOV) gap closure, and modifying freeway-to-freeway interchanges.

The overall goal of TOPS is to reduce congestion by implementing sound traffic engineering techniques that keep freeways operating at peak efficiency. This means aggressively working to overcome choke point locations along the system that severely reduce speed and hamper efficiency of these corridor facilities by as much as 50 percent.

The implementation plan also identifies the need for additional intelligence components to complete the surveillance, detection, and verification infrastructure. A prioritized list of projects that address the needs at highway bottlenecks and HOV lanes has also been prepared by District 7 TOPS Unit and included as part of this report.

Lincoln Boulevard Corridor Mobility Improvement Study:

The Lincoln Boulevard Corridor Mobility Improvement Study is a comprehensive multi-modal mobility study of Lincoln Boulevard (State Route 1) in western Los Angeles County area. The study began in 2001 and is currently nearing completion of its first phase with the selection of a series of preliminary improvement alternatives. The project is led by a task force comprised of representatives from several jurisdictions and agencies including City of Los Angeles, Southern California Association of Governments, City of Santa Monica, the County of Los Angeles, Culver City, the Coastal Commission, Caltrans and others. The study area includes a five-mile segment of Lincoln Boulevard from Manchester Avenue, north of LAX to the interchange with the Santa Monica Freeway (I-10). The project investigated existing mobility and urban design issues and problems along the corridor through a comprehensive inventory. A series of preliminary improvement alternatives were proposed and evaluated for the corridor, which included a broad range of improvements from streetscape and urban design solutions to a variety of low, medium and high cost multi-modal mobility improvements. These transportation improvements included various rail transit, Bus Rapid Transit (BRT) configurations, bicycle facilities, intersection improvements and others. The consultant team conducted an initial screening of the preliminary alternatives and has made a recommendation for two packages of short and long term mobility improvements to carry forward to a second, more detailed analysis phase of the study to be conducted in the future.

6. INDIVIDUAL PUBLIC AGENCY REPORTS

This section contains information on the specific city's existing traffic signal infrastructure and traffic control system and a summary of the latest ITS improvements proposed to be deployed by the South Bay ITS Projects. The majority of the signalized intersections in the study area are operated and maintained by Los Angles County utilizing the LACO traffic controller software, signals are mostly time based coordinated, and there is no central control system. **Appendix B** provides a graphical summary of the existing communication system and existing and future ITS elements for the each of the public agencies identified in this section.

6.1 City of El Segundo

City of El Segundo has a residential community of approximately 16,000 persons that is also home to many large employers. It is estimated that the daytime workforce population in the City increases to 80,000 persons. The City is spread over 5.5 square miles and bounded by Los Angeles International Airport to the north, the City of Manhattan Beach to the south, the Pacific Ocean and City of Los Angeles to the west, and the City of Hawthorne to the east. The following section provides a brief description of the City of El Segundo as it relates to this project.

Traffic Signals

There are 19 signalized intersections along the study corridors in the City of El Segundo. These 21 signalized intersections are owned and maintained by various agencies. These agencies are:

- Owned by City of El Segundo and maintained by LA County – 5 intersections
- Owned and maintained by Caltrans – 7 intersections
- Owned and maintained by City of Los Angeles – 7 intersections

These signalized intersections utilize two different traffic control systems, QuicNet2 and ATSAC. **Appendix C** provides a summary of the signalized intersections along the study corridors in the City of El Segundo. Included are also some of the attributes for each of the signalized intersections.

Communication Infrastructure

There are two corridors within the study area that are supported with twisted pair network, Imperial Highway (parts of which are within the City of Los Angles) and Sepulveda Boulevard. Imperial Highway (2.94 miles of twisted pair within the study area) runs east/west along the northern border of the city and twisted pair is present along the entire corridor. The north/south Sepulveda Boulevard corridor (1.98 miles of twisted pair within the study area) splits El Segundo and is accompanied by twisted pair throughout the entire city. Of the 19 signalized intersections along the study corridors in the City of El Segundo, 14 have existing twisted pair communication.

Existing ITS Deployments

The City of El Segundo currently does not have any ITS elements deployed.

Planned ITS Deployments

There are three proposed locations for CCTV deployment as specified in the South Bay ITS Project (Part II):

- Sepulveda Boulevard and Imperial Highway
- Sepulveda Boulevard and El Segundo Boulevard
- Aviation Boulevard and El Segundo Boulevard

All proposed CCTV deployments in the City of El Segundo are along project corridors. There are three proposed locations for changeable message sign (CMS) deployment as specified in the South Bay ITS Project (Part III):

- Northbound on Sepulveda Boulevard – south of Imperial Highway
- Southbound on Sepulveda Boulevard – north of El Segundo Boulevard
- Southbound on Aviation Boulevard – north of Rosecrans Avenue

All proposed CMS deployments in the City of El Segundo are along project corridors. There are three proposed locations for system detection deployments as specified in the South Bay ITS Project (Part II):

- Sepulveda Boulevard and Imperial Highway
- Sepulveda Boulevard and El Segundo Boulevard
- Aviation Boulevard and El Segundo Boulevard

All proposed deployments in the City of El Segundo are along the project corridors.

6.2 City of Hawthorne

Incorporated in 1922, the City of Hawthorne currently has a population of nearly 87,000 within a six square mile area. located near the Los Angeles International Airport, connected by rail to the Port of Los Angeles and downtown Los Angeles, and surrounded by the San Diego (I-405), Harbor (I-110), and Glenn M. Anderson (I-105) Freeways, the City of Hawthorne is an integral region in LA County. The following section provides a brief description of the City of Hawthorne as it relates to this project.

Traffic Signals

There are 60 signalized intersections along the study corridors in the City of Hawthorne. These 60 signalized intersections are owned and maintained by various agencies. These agencies are:

- Owned by City of Hawthorne and maintained by LA County – 50 intersections
- Owned by City of Hawthorne and maintained by Caltrans – 1 intersections
- Owned by City of Inglewood and maintained by LA County – 2 intersections
- Owned and maintained by City of Inglewood – 2 intersections
- Owned and maintained by Caltrans – 1 intersections
- Owned and maintained by Los Angeles County – 4 intersections

Of the 60 intersections, 4 are served by a twisted pair connection. **Appendix C** provides a summary of the signalized intersections along the study corridors in the City of Hawthorne. Included are also some of the attributes for each of the signalized intersections.

The City of Hawthorne currently operates the Econolite Zone Monitor System along Prarie between 118th and 139th (master at El Segundo Boulevard). The City is in the process of upgrading to the Aries system. Hawthorne Boulevard between Imperial Highway and Rosecrans Avenue is ready for the Zone Monitor/Aries system, however there is no communication system. As a result, this corridor has not been turned on. The master is located at Broadway.

Communication Infrastructure

The city of Hawthorne's communication system is currently very limited. Imperial Highway runs east/west along the northern border of the city and twisted pair is present along most of the corridor (1.43 miles of twisted pair is currently available).

Existing ITS Deployments

The City of Hawthorne currently does not have any ITS elements deployed.

Planned ITS Deployments

There are 15 proposed locations for CCTV deployment as specified in the South Bay ITS Project (Part II):

- Prairie Avenue and Marine Avenue
- Aviation Boulevard and Rosecrans Avenue
- Interstate 405 and Rosecrans Avenue
- Inglewood Avenue and Rosecrans Avenue
- Prairie Avenue and Rosecrans Avenue
- Crenshaw Boulevard and Rosecrans Avenue
- Inglewood Avenue and El Segundo Boulevard
- Hawthorne Boulevard and El Segundo Boulevard
- Prairie Avenue and El Segundo Boulevard
- Crenshaw Boulevard and El Segundo Boulevard
- Inglewood Avenue and Imperial Highway
- Hawthorne Boulevard and Imperial Highway
- Prairie Avenue and Imperial Highway
- Crenshaw Boulevard and Interstate 105 Eastbound
- Crenshaw Boulevard and Interstate 105 Westbound

Seven of these proposed CCTV deployments are along the study corridors. There are eight proposed locations for CMS deployments as specified in the South Bay ITS Project (Part III):

- Northbound on Aviation Boulevard – south of Rosecrans Avenue
- Westbound on Rosecrans Avenue – west of Interstate 405
- Westbound on Rosecrans Avenue – west of Hawthorne Boulevard
- Southbound on Hawthorne Boulevard – north of Rosecrans Avenue
- Southbound on Hawthorne Boulevard – north of Imperial Highway
- Eastbound on El Segundo Boulevard – west of Crenshaw Boulevard
- Southbound on Inglewood Boulevard – north of Rosecrans Avenue
- Westbound on El Segundo Boulevard – west of Western Avenue

Three of the proposed CMS deployment locations are along the study corridors. There are 12 proposed locations for system detection deployment as specified in the South Bay ITS Project (Part II):

- Prairie Avenue and Marine Avenue
- Aviation Boulevard and Rosecrans Avenue
- Inglewood Avenue and Rosecrans Avenue
- Crenshaw Boulevard and Rosecrans Avenue
- Inglewood Avenue and El Segundo Boulevard
- Hawthorne Boulevard and El Segundo Boulevard
- Prairie Avenue and El Segundo Boulevard
- Crenshaw Boulevard and El Segundo Boulevard
- Inglewood Avenue and Imperial Highway
- Hawthorne Boulevard and Imperial Highway
- Prairie Avenue and Imperial Highway
- Crenshaw Boulevard and Interstate 105

Six of the proposed locations for system detection are along the study corridors.

6.3 City of Manhattan Beach

The City of Manhattan Beach is located 19 miles southwest of the City of Los Angeles on the southerly end of Santa Monica Bay. The City is 3.88 square miles in area, 2.1 miles of beach front, 40 acres of recreational beach area, 48 acres of major park land, and approximately 120 miles of paved streets. The following section provides a brief description of the City of Manhattan Beach as it relates to this project.

Traffic Signals

There are 32 signalized intersections along the study corridors in the City of Manhattan Beach. These 32 signalized intersections are owned and maintained by various agencies. These agencies are:

- Owned by City of Manhattan Beach and maintained by LA County – 22 intersections
- Owned and maintained by Caltrans – 10 intersections

These signalized intersections are currently not operated via a centralized control system. Of the 32 intersections, 11 are served by a twisted pair connection, 10 of which are Caltrans signals. **Appendix C** provides a summary of the signalized intersections along the study corridors in the City of Manhattan Beach. Included are also some of the attributes for each of the signalized intersections.

Communication Infrastructure

The City of Manhattan Beach communication system currently consists of all twisted pair. Sepulveda Boulevard runs north/south through the heart of the city and is accompanied by twisted pair along the entire 2 miles of corridor. An additional 0.89 miles of twisted pair meets Sepulveda at Artesia Boulevard, which runs east/west along the southern border.

Existing ITS Deployments

The City of Manhattan Beach currently does not have any ITS elements deployed.

Planned ITS Deployments

There are four proposed locations for CCTV deployment as specified in the South Bay ITS Project (Phase II):

- Sepulveda Boulevard and Rosecrans Avenue
- Sepulveda Boulevard and Marine Avenue
- Sepulveda Boulevard and Manhattan Beach Boulevard
- Sepulveda Boulevard and Artesia Boulevard

Three of these proposed CCTV deployments are along the project study corridors. There are two proposed locations for CMS deployment as specified in the South Bay ITS Project (Part III):

- Northbound on Sepulveda Boulevard – south of Marine Avenue
- Eastbound on Rosecrans Boulevard – west of Aviation Boulevard

Both of the proposed CMS deployment locations are along the project study corridors. There are four proposed locations for system detection deployment as specified in the South Bay ITS Project (Part II):

- Sepulveda Boulevard and Rosecrans Avenue
- Sepulveda Boulevard and Marine Avenue
- Sepulveda Boulevard and Manhattan Beach Boulevard
- Sepulveda Boulevard and Artesia Boulevard

Three of the proposed locations for system detection are along the project study corridors.

6.4 City of Lawndale

The following section provides a brief description of the City of Lawndale as it relates to this project.

Traffic Signals
There are 28 signalized intersections along the study corridors in the City of Lawndale. These 28 signalized intersections are owned and maintained by various agencies. These agencies are:

- Owned by City of Lawndale and maintained by LA County – 8 intersections
- Owned by City of Hawthorne and maintained by LA County – 5 intersections
- Owned by City of Redondo Beach and maintained by LA County – 6 intersections
- Owned by City of Torrance and maintained by LA County – 1 intersections
- Owned by City of Torrance and maintained by Caltrans – 1 intersections
- Owned by City of Hawthorne and maintained by Caltrans – 5 intersections
- Owned by City of Hawthorne and maintained by LA County – 2 intersections

These signalized intersections are currently not operated via a centralized control system. Of the 28 intersections, 9 are served by a twisted pair connection. **Appendix C** provides a summary of the signalized intersections along the study corridors in the City of Lawndale. Included are also some of the attributes for each of the signalized intersections.

Communication Infrastructure

The City of Lawndale communication system consists of all twisted pair and is currently limited to the Hawthorne Boulevard corridor. Hawthorne Boulevard runs north/south through the middle of the city and is accompanied by twisted pair south of Manhattan Beach Boulevard, for 0.75 miles, to the southern extent of the city.

In addition to the above twisted pair, the City recently installed empty communication conduit along:

- Hawthorne Blvd: Between Rosecrans Avenue and Artesia Boulevard
- Manhattan Beach Blvd: Between Inglewood Avenue and Prairie Avenue

Upcoming projects within the City of Lawndale that will provide an opportunity to install communication conduits are:

- Marine Avenue: This project includes a major utility underground project.

Existing ITS Deployments

The City recently installed a new changeable message sign (CMS) or electronic message center at the intersection of Hawthorne Boulevard and 147th Street. The intent of this electronic sigh is to display messages on behalf of local groups to the citizens of Lawndale.

Planned ITS Deployments

All of the proposed ITS deployments in the City are a result of the South Bay Signal Synchronization Project and Bus Improvement Plan.

There are five proposed locations for CCTV deployment as specified in the South Bay ITS Project (Part II):

- Inglewood Avenue and Marine Avenue
- Inglewood Avenue and Manhattan Beach Boulevard
- Inglewood Avenue and Artesia Boulevard
- Hawthorne Boulevard and Marine Avenue
- Hawthorne Boulevard and Manhattan Beach Boulevard

The two proposed CCTV camera along Manhattan Beach Boulevard intersect the project study corridors. There are four proposed locations for CMS deployment as specified in the South Bay ITS Project (Part III):

- Southbound on Hawthorne Boulevard – south of Marine Avenue
- Southbound on Hawthorne Boulevard – north of Artesia Boulevard
- Northbound on Hawthorne Boulevard – south of Rosecrans Avenue
- Northbound on Inglewood Avenue – south of Manhattan Beach Boulevard

None of the proposed CMS locations are located on a project study corridors, however, all are located on approaches to a project study corridor.

Proposed system detection deployment in the City of Lawndale basically mirrors the proposed CCTV deployments in the area. There are four locations that have been proposed for system detection as specified in the South Bay ITS Project (Part II):

- Inglewood Avenue and Marine Avenue
- Inglewood Avenue and Manhattan Beach Boulevard
- Inglewood Avenue and Artesia Boulevard
- Hawthorne Boulevard and Manhattan Beach Boulevard

Two of the proposed locations for system detection are along the project study corridor of Manhattan Beach Boulevard.

6.5 City of Redondo Beach

Located in the coastal edge of Los Angeles County, just twenty miles from downtown Los Angeles and seven miles south of Los Angeles International Airport. The City's population has been steadily growing in the past few years. As of January 2000, the Census reports a total population of 63,261. Significant concentrations of employment and retail activity include the northern industrial complex anchored by the TRW campus (recently acquired by Northrop Grumman); the Harbor/Pier area; the Galleria at South Bay–-a regional mall anchoring the east end of the City; and an eclectic mix of specialty shops, restaurants and services known as the Riviera Village area in the south end of the City. The following section provides a brief description of the City of Redondo Beach as it relates to this project.

Traffic Signals

There are 56 signalized intersections along the study corridors in the City of Redondo Beach. These 56 signalized intersections are owned and maintained by various agencies. These agencies are:

- Owned and maintained by City of Redondo Beach – 18 intersections
- Owned by City of Redondo Beach and maintained by LA County – 14 intersections
- Owned and maintained by Caltrans – 21 intersections
- Owned by City of Torrance and maintained by Caltrans – 3 intersections

These signalized intersections are currently not operated via a centralized control system. 34 of the 56 intersections are served by a twisted pair connection. **Appendix C** provides a summary of the signalized intersections along the study corridors in the City of Redondo Beach. Included are also some of the attributes for each of the signalized intersections.

Communication Infrastructure

The City of Redondo Beach has multiple corridors that support a twisted pair communication system. The Artesia Boulevard corridor, that traverses Redondo Beach, is served by twisted pair from the east to west border. Twisted pair also runs along Hawthorne Boulevard, which forms part of the eastern city boundary. The Sepulveda / Pacific Coast Highway corridor completes the communication network, entering Redondo Beach from the north and continuing through to the southeast corner of the city.

As part of the Artesia Boulevard Beautification Plan (resurfacing and installation of left turns) the City will be repairing existing twisted pair and providing communication for City IT Department.

Existing ITS Deployments

The City of Redondo Beach currently does not have any ITS elements deployed.

Planned ITS Deployments

All of the proposed ITS deployments in the city are a result of the South Bay Signal Synchronization Project and Bus Improvement Plan.

Based on the South Bay ITS Project (Part II) there are 11 proposed locations for CCTV deployment:

- Aviation Boulevard and Marine Avenue
- Aviation Boulevard and Manhattan Beach Boulevard
- Aviation Boulevard and Artesia Boulevard
- Hawthorne Boulevard and Artesia Boulevard
- Sepulveda Boulevard / Pacific Coast Highway and Anita Street
- Sepulveda Boulevard / Pacific Coast Highway and Torrance Boulevard
- Sepulveda Boulevard / Pacific Coast Highway and Prospect Avenue
- Prospect Avenue and Torrance Boulevard
- Anza Avenue and 190th Street
- Hawthorne Boulevard and 190th Street
- Inglewood Avenue and 190th Street

The only proposed CCTV camera deployment that falls on one of the study corridors is at Aviation Boulevard and Manhattan Beach Boulevard. There are two proposed locations for CMS deployment as specified in the South Bay ITS Project (Part III):

- Eastbound on Manhattan Beach Boulevard – west of Inglewood Avenue
- Eastbound on 190th Street – west of Anza Avenue

One of the proposed CMS locations is located on the Manhattan Beach project study corridor. There are 8 locations that have been proposed for system detection as specified in the South Bay ITS Project (Part II):

- Aviation Boulevard and Marine Avenue
- Aviation Boulevard and Manhattan Beach Boulevard
- Aviation Boulevard and Artesia Boulevard
- Hawthorne Boulevard and Artesia Boulevard
- Sepulveda Boulevard / Pacific Coast Highway and Anita Street
- Sepulveda Boulevard / Pacific Coast Highway and Torrance Boulevard
- Anza Avenue and 190th Street
- Hawthorne Boulevard and 190th Street

Two of the proposed locations for system detection are along the project study corridor of Aviation Boulevard.

6.6 City of Inglewood

The following section provides a brief description of the City of Inglewood as it relates to this project.

Traffic Signals

There are 98 signalized intersections located on the City of Inglewood's major corridors. The signals are owned by a variety of different agencies including City of Inglewood itself, City of Hawthorne, City of Los Angeles and Los Angeles County.

- Owned and maintained by City of Inglewood – 89 intersections
- Owned by City of Inglewood and maintained by Los Angeles County – 2 intersections
- Owned by City of Hawthorne and maintained by Caltrans – 1 intersection
- Owned and maintained by City of Los Angeles – 4 intersections
- Owned and maintained by Los Angeles County – 2 intersections

All the City of Inglewood's signals utilize a QuicNet4 traffic control system. **Appendix C** provides a summary of the signalized intersections along the study corridors in the City of Inglewood. Included are also some of the attributes for each of the signalized intersections.

Communication Infrastructure

The City of Inglewood has a fairly dense communication network running throughout its major streets. The Manchester Boulevard, Century Boulevard and Imperial Highway corridors, traverse Inglewood from the east to west borders and are served by twisted pair the entire way. The north/south corridors of La Brea Avenue, La Cienega Boulevard, Prairie Avenue and Crenshaw Boulevard support twisted pair throughout the city. The City also has an extensive fiber optics network that supports the CCTV deployments.

Existing ITS Deployments

There are four existing CCTV locations in City of Inglewood.

- Century Boulevard and Prairie Avenue
- Manchester Boulevard and Prairie Avenue
- Century Boulevard and Crenshaw Boulevard
- Manchester Boulevard and La Cienega Boulevard

There are two existing CMS locations in City of Inglewood.

- Southbound on La Cienega Boulevard – north of Manchester
- Northbound on Prairie Avenue - north of Manchester

Planned ITS Deployments

The following ITS enhancements are currently planned by the City of Inglewood:

- Install Fiber Optic (FO) Communication System along Manchester, Prairie, and Crenshaw for improved signal and CCTV communications
- Install 3 Closed Circuit Television (CCTV) cameras
- Install new conduit system, which consists of one (1) four inch PVC schedule 40 conduit, with four (4) 1" factory-installed innerducts, along La Cienega Boulevard between Manchester Boulevard and Century Boulevard, and along Century Boulevard between La Cienega and Crenshaw Boulevard

- Install approximately five (5) miles of FO Communication System along La Cienega from Manchester to Century and along Century from La Cienega to Crenshaw. This will complete the south ring of a SONET system.
- Install approximately four (4) miles of fiber optic cables in existing conduit along Manchester from La Cienega to Crenshaw and along Crenshaw from La Cienega to Century.
- Install four (4) CCTV Cameras at these locations: Manchester/La Brea, Manchester/Prairie, Manchester/Crenshaw, La Brea/Century
- Install three (3) video detection cameras at the followoing locations: Century/La Brea, Century/Prairie and Century/Crenshaw

The following ITS enhancements are currently proposed by the South Bay ITS Projects:

Based on the South Bay ITS Project (Part II) there are 13 proposed locations for CCTV deployment in the City of Inglewood:

- Manchester Boulevard and Aviation Boulevard
- Manchester Boulevard and Inglewood Avenue
- Manchester Boulevard and Crenshaw Boulevard
- Arbor Vitae Street and La Cienega Boulevard
- Arbor Vitae Street and Inglewood Avenue
- Arbor Vitae Street and La Brea Avenue
- Arbor Vitae Street and Prairie Avenue
- Arbor Vitae Street and Crenshaw Boulevard
- Century Boulevard and La Cienega Boulevard
- Century Boulevard and Interstate 405 NB ramp
- Century Boulevard and Inglewood Avenue
- Imperial Highway and Prairie Avenue
- Imperial Highway and Crenshaw Boulevard

There are six proposed locations for CMS deployment as specified in the South Bay ITS Project (Part III):

- Southbound on La Cienega Boulevard – south of Arbor Vitae Street
- Southbound on La Crenshaw Boulevard – north of Imperial Highway
- Southbound on Inglewood Avenue – south of Arbor Vitae Street
- Westbound on Century Boulevard – west of La Brea Avenue
- Westbound on Imperial Highway – east of Crenshaw Boulevard
- Eastbound on Imperial Highway – west of Crenshaw Boulevard

There are 14 locations that have been proposed for detection as specified in the South Bay ITS Project (Part II) in the City of Inglewood:

- Manchester Boulevard and La Cienega Boulevard
- Manchester Boulevard and Locust Street
- Manchester Boulevard and Eucalyptus Avenue
- Manchester Boulevard and Prairie Avenue
- Manchester Boulevard and West Boulevard
- Manchester Boulevard and Crenshaw boulevard
- Arbor Vitae Street and Inglewood Avenue

- Century Boulevard and La Cienega Boulevard
- Century Boulevard and Interstate 405
- Century Boulevard and Walnut Street
- Century Boulevard and Prairie Avenue
- Century Boulevard and Yukon Avenue
- Century Boulevard and Crenshaw Boulevard
- Crenshaw Boulevard and Imperial Highway

6.7 County of Los Angeles

The following section provides a brief description of LA County as it relates to this project.

Traffic Signals

There are 8 signalized intersections along the study corridors in the LA County. These 8 signalized intersections are owned and maintained by various agencies. These agencies are:

- Owned and maintained by City of Los Angeles– 5 intersections
- Owned by LA County and maintained by Caltrans– 1 intersections
- Owned and maintained by LA County – 2 intersections

Four of the City of Los Angeles intersections are connected with Twisted Pair. **Appendix C** provides a summary of the signalized intersections along the study corridors in LA County. Included are also some of the attributes for each of the signalized intersections.

Communication Infrastructure

The region of Los Angeles County that falls within the project boundary has twisted pair along the western end of Imperial Highway. In addition, as part of the South Bay ITS Projects, leased communication infrastructure is currently under consideration in the short-term to provide connection to all of the signalized intersections in the South Bay region.

Existing ITS Deployments

The region of Los Angeles County that falls inside the project boundary currently has no existing ITS elements.

Planned ITS Deployments

All of the proposed ITS deployments in the city are a result of the South Bay Signal Synchronization Project and Bus Improvement Plan.

Based on the South Bay ITS project (Part II) there are 3 proposed locations in Los Angeles County for CCTV deployment:

- La Cienega Boulevard and Imperial Highway
- Interstate 405 and El Segundo Boulevard
- Aviation Boulevard and Imperial Highway

All three proposed locations lie on a project corridor.

There is one proposed CMS location on El Segundo Boulevard.

- Westbound on El Segundo Boulevard – east of Aviation Boulevard

The location is located on the El Segundo Boulevard project corridor.

There is one proposed system detection location in the study area of Los Angeles County:

- Aviation Boulevard and Imperial Highway

7. POTENTIAL ENHANCEMENTS & BENEIFTS

As discussed in the Section 1.0 of this report (Introduction), the El Segundo Area ITS Project will provide the implementation of a multi-jurisdictional Advanced Traveler Information System (ATIS) / Advanced Traffic Management System (ATMS) / Traveler Information Center (TIC) for the El Segundo Area. When completed, the project will provide freeway and arterial travel information to the traveling public in and out of the study area. The following section summarizes the relative merits and possible benefits of these deployments. The cost of these deployments are very much dependent on the number and type of deployments. With the expansion of ITS deployments in the region, economies of scale can be achieved, lowering the unit price of each deployment. These deployments will all have some impacts on staffing needs, however, this again will be dependent on the number of installations and economies of scale can be achieved with a larger number of deployments.

7.1 Advanced Traveler Information System (ATIS)

This component consists of the development, design, selection, deployment, operation, management, and maintenance of a complete multi-jurisdictional ATIS. The system will include the hardware and software necessary to collect, process, validate, and disseminate both pre-trip and en-route real-time traffic and roadway information to public agencies, private stakeholders, and the public.

Providing traveler information on several modes of travel can be beneficial to both the traveler and service providers. Several transit agencies in the United States have started using traveler information websites to provide schedules, expected arrival times, expected trip times, and route planning services to patrons. Also, many state DOT and local transportation agencies are providing current traffic conditions and expected travel times using similar approaches. Ongoing implementations of the designated 511 telephone number will improve access to traveler information. Each of these services allows users to make a more informed decision for trip departures, routes, and mode of travel, especially in bad weather or major road closures. They have been shown to increase transit usage, and may help to reduce congestion when travelers choose to defer or postpone trips, or to select alternate routes.

Evaluation of implemented traveler information (conducted by the Federal Highway Administration) systems reveals that the systems are well-received by those who make use of them. The number of travelers using the information generally represents a small portion of the total travelers in a region. Consequently, the evaluated systems have little, if any, impact on travel times across the regional transportation network. Nevertheless, individual users of the systems do perceive significant benefit from them and are generally satisfied with the service.

Tourism and event-related travel information focuses on the needs of travelers in areas unfamiliar to them or when traveling to events such as sporting activities or concerts. It is foreseeable that these advanced traveler information systems will improve the mobility of tourists. Information services could include electronic yellow pages, transit, and parking availability. The systems may also include mobility services such as pre-trip route selection or en route navigation.

The following is a summary of some of the available ATIS devices:

Changeable Message Signs (CMS): CMS offer a valuable technique to provide motorists with real-time traffic information and, if desired, alternate route selection advisories in advance of key decision points along the freeways and along a primary arterial corridor. CMS can provide timely, accurate and reliable en-route information to motorists when installed at critical locations, and properly operated and

maintained. This can be achieved without the need for special, in-vehicle equipment. Recently, agencies have begun using CMS to broadcast AMBER ALERTS, providing motorists with information regarding child abductions.

A sub-category to CMS is extinguishable message signs (EMS). EMS are typically signs which contain a static message which is turned on, or lit up, when there is information to be presented. EMS are often used in concert with highway advisory radio, or when "recurrent conditions" can be predicted, such as traffic routing and parking management associated with a special event generator.

The CMS that are placed along arterials are typically 5ft x 10ft in size and mounted approximately 18 feet high (based on Caltrans specification that provides for truck clearance). EMS are typically smaller in size (compared to CMS) and mounted on the roadside versus overhead. Communication to the signs can be done via dial-up, wireless or fiber optic connections from a central location (e.g., TMC).

Media Services: Media Services, refers to the use of television, radio, and city web sites to broadcast local traffic information to the surrounding area residents and employers. For these services, local traffic information is either broadcast (published on City web site) or provided to third party broadcasters for dissemination to the general public.

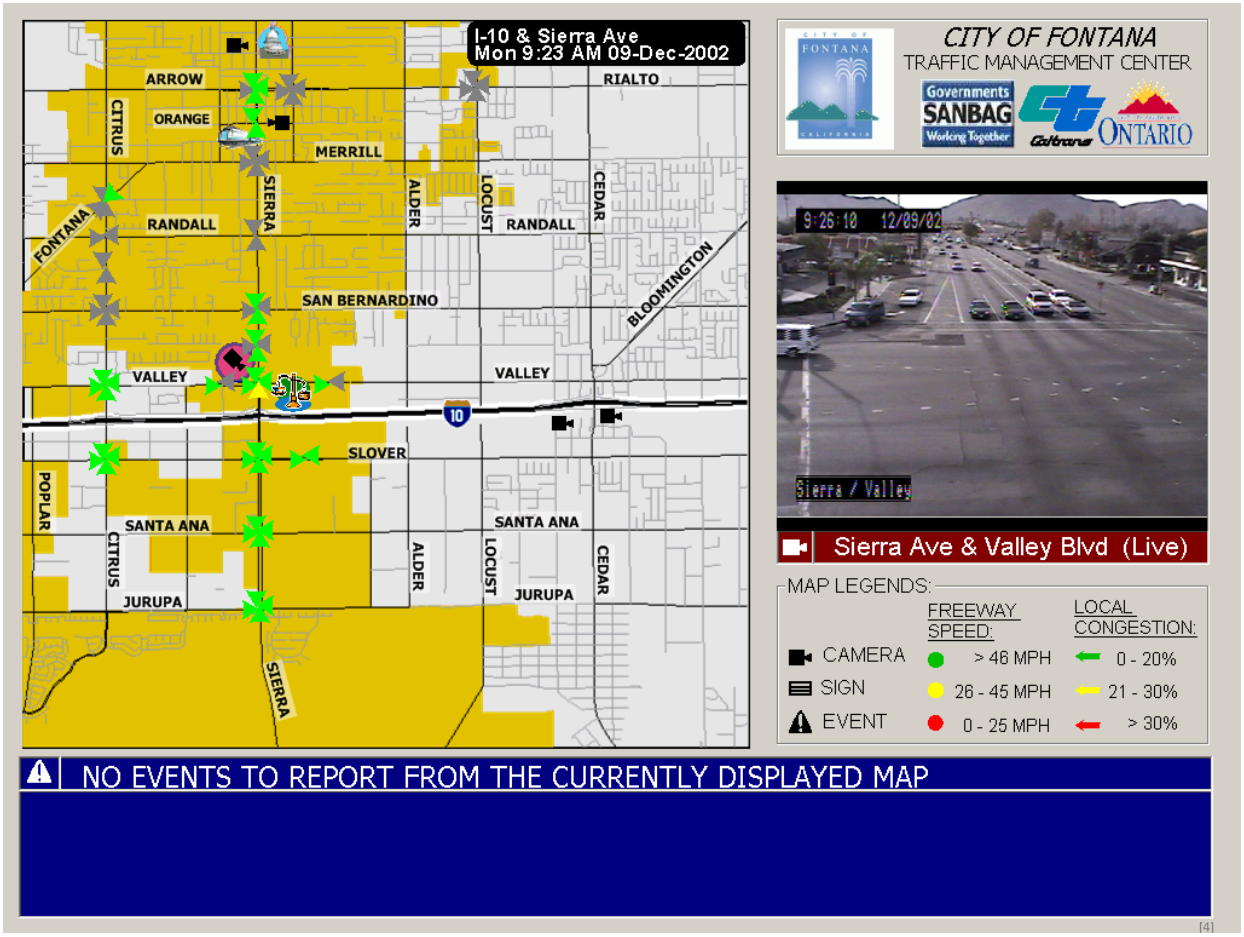
In the case of Cable Television (CATV), the ATMS system would provide an additional signal feed for broadcasting live traffic information at peak traffic hours. This broadcast could include a graphical map representation of current traffic conditions including freeway speeds and arterial traffic volumes for the El Segundo ITS study area. Additionally, incident data and selected CCTV camera images of local and freeway traffic could be displayed. An example of a CATV image (City of Fontana) is provided in **Figure 7.1**.

Information Displays: This type of service, typically provided through the use of kiosks placed at strategic locations, will provide travelers with a reliable source of pre-trip traffic and traveler information. For example, information displays could be deployed at the existing Green Line stations, as well as City Hall lobby and/or major employment centers, so that travelers can visually receive information relative to traffic conditions on roadways in the City as well as freeways in the area. Information displays can take many different shapes. They can be as simple as small scrolling LED bar signs, large electronic boards containing several lines of text, large projection monitors which depict roadway congestion information, or kiosks. A kiosk could include a graphical user interface (GUI) that provides touch screen interaction by the user. Access to this data will allow travelers to make informed decisions with regard to travel route, time and mode prior to their departure.

Kiosks quite frequently also contain or provide links to other services and databases, such as transit schedules and phone numbers to local business.

Web Page: This type of service will provide traffic-related information over the Internet. The information provided most frequently includes a color-coded speed map of the primary corridor freeway/arterial system, video feeds from CCTV cameras, and links to other transportation services, such as local transit agencies. The ATMS system would automatically generate all the required traffic related pages, and make them available to the City's web server for dissemination on the City's main web site. An example of a traffic web page (City of Fontana) is provided in **Figure 7.2**.

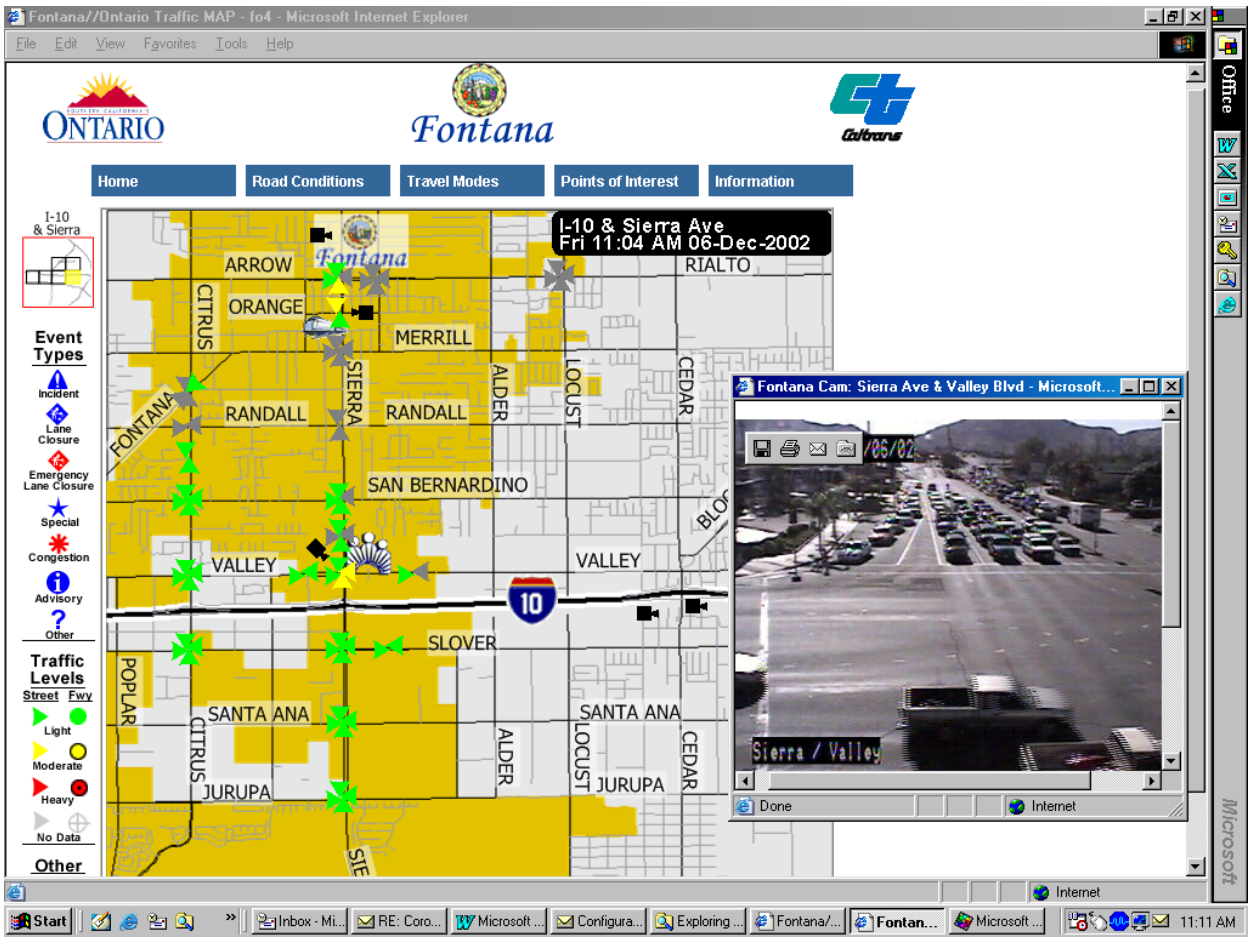
Figure 7.1:
Sample CATV Video Image



7.2 Advanced Traffic Management System (ATMS)

The deployed ATMS will provide the hardware and software necessary to monitor, control, and coordinate the operation of traffic signals along the major arterial highways in the El Segundo Area, and integrate the ATMS functions and operations with other traffic signal control systems and ITS projects in the South Bay region. The system will be capable of detecting and monitoring signal status, identifying traffic congestion and incidents, and displaying this information through a fully integrated mapping function. The system will also be able to detect equipment malfunctions enabling the operator to initiate appropriate maintenance operation responses and various other responses to traffic events and congestion either manually or automatically using an expert system application. There are several opportunities in deploying a successful ATMS system. These are:

Figure 7.2:
Sample Traffic Web Page



Video Monitoring: With the use of CCTV, operators are able to provide manual intervention and, if required, dispatch equipment and personnel to repair equipment failures or assist in incident removal in a coordinated method. The surveillance images can also be shared with other departments (e.g., fire department, police department, etc) and the potential exists for integration with partner agencies as well. Within the realm of video monitoring there are two types of camera deployments, CCTV with pan/tilt/zoom (PTZ) capability, and fixed view cameras. Both camera types serve a unique implementation need and each has strengths and weaknesses that should be discussed prior to design or implementation. For example, both camera types can be used for intersection monitoring, although fixed view cameras require one unit per approach direction and typically would not be equipped with zoom capability. CCTV with PTZ cameras typically require one unit per location, and have the capability to change view angles as well as zoom into potential incidents.

Vehicle Detection: In order to operate a more effective and efficient traffic control system and to analyze traffic flow conditions from a remote location, it is important to implement a fairly comprehensive vehicle detection system. This system should include both signalized intersection detectors (conventional loop and/or video detection at the stop bars, left turn lanes, and advance detection), and system detectors that provide mid-block traffic data. The El Segundo ITS Project study area currently has an extensive network of stop bar and advanced detectors. To the extent possible, these detectors can be used for the

collection of the necessary data. However, additional system detectors might be needed at some locations to fill in the gaps in the existing network of system detectors. This will provide important data that will be used by the traffic control system in support of a traffic responsive operation, as well as provide data to the traveler information system to provide real-time information relative to congestion levels for dissemination to the motoring public.

Traffic Signal Control Systems: Traffic Signal Control Systems address a number of objectives, primarily improving traffic flow and safety. Adaptive signal control systems coordinate control of traffic signals across the study area, adjusting the lengths of signal phases based on prevailing traffic conditions. Advanced signal systems include coordinated signal operations across neighboring jurisdictions, as well as centralized control of traffic signals which may include some necessary technologies for the later development of adaptive signal control. Pedestrian detectors, specialized signal heads, and bicycle-actuated signals can improve the safety of all road users at signalized intersections. Traffic management systems with unique operating schemes can also smooth traffic flow during special events.

Parking Management System: Parking management systems, most commonly deployed in urban centers or beach areas or at modal transfer points such as airports, monitor the availability of parking and disseminate the information to drivers, reducing traveler frustration and congestion associated with searching for parking.

Data Sharing: Sharing information with other components of the ITS infrastructure can also have a positive impact on the operation of the transportation system. Examples include coordinating operations with Caltrans and their freeway management system, or providing arterial information to a traveler information system covering multiple roadway and public transit facilities.

Special Event Traffic Management: Special event transportation management systems can help control the impact of congestion at stadiums, convention centers, or other major activity centers. In areas with frequent events, large changeable destination signs or other lane control equipment can be installed. In areas with occasional or one-time events, portable equipment can help smooth traffic flow.

8. REFERENCES

1. South Bay Signal Synchronization and Bus Speed Improvements Plan, Part II & III
2. Los Angeles Air Force Base Land Conveyance, Construction and Development Project (Final EIS/EIR)
3. Coastal Corridor Transportation Study
4. Rosecrans Corridor Strategic Initiative
5. I-405 Improvement Study
6. Caltrans District 7 Traffic Operations Strategies Implementation Report
7. El Segundo General Plan – 1992
8. Manhattan Beach General Plan Update, August 19, 2002
9. FULL Heart of the City Specific Plan Document: Section of Circulation and Transportation Plan. City of Redondo Beach. March 2002
10. Intelligent Transportation Systems Benefits and Costs, 2003 Update (Federal Highway Administration)
11. http://www.asila.org/aboutus/index.cfm

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APPENDIX A
Meeting Notes of Stakeholder Meetings

EL SEGUNDO ITS PROJECT

August 20, 2003 (11:00 - 12:15 PM) PUBLIC STAKEHOLDER MEETING NOTES

ATTENDEES	COMPANY/AGENCY	PHONE	EMAIL
Fred Rabban	Caltrans – D7	213-897-0302	fredrabban@dot.ca.gov
Romy Salvador	Caltrans – D7	213-897-0296	Romeo.Salvador@dot.ca.gov
Andres Santamaria	City of El Segundo	310-524-2356	asantamaria@elsegundo.org
Rick Morgan	City of Hermosa Beach	310-318-0211	rmorgan@hermosabch.org
Rob Osborne	City of Manhattan Beach	310-802-5540	rosborne@citymb.info
John Mate	City of Redondo Beach	310-318-0661	John.mate@redondo.org
Anthony Rose	City of Torrance / MAX	310-618-6234	arose@torrnet.com
Jim Mills	City of Torrance / MAX	310-618-6291	jmills@torrnet.com
Jesse Glazer	FHWA	213-202-3955	Jesse.glazer@fhwa.dot.gov
Abbas Mohaddes	Iteris / MMA	714-780-7285	akm@iteris.com
Mark Nuaimi	Iteris / MMA	714-780-7267	mnn@iteris.com
Ramin Massoumi	Iteris / MMA	714-780-7719	rmm@iteris.com
Tom Petrosino	Iteris / MMA	714-780-7656	tmp@iteris.com
Jeff Pletyak	LA County DPW	626-300-4757	jplety@dpw.co.la.ca.us
Robert Yates	LACMTA	213-922-3096	yatesr@mta.net
Tom O'Brien	SBCCOG	626-794-8577	Tobrien1029@earthlink.net

PREPARED BY: Abbas Mohaddes / Ramin Massoumi, Iteris, Inc.

DATE: August 21, 2003

The following summarizes the items discussed at the meeting:

	Items Discussed
1.	The following agencies should be contacted to obtain additional information: • Due to the ITS activities currently taking place in the City of Inglewood, they should also be invited as a stakeholder. • Due to recent activities between MTA, LACDPW, and Caltrans to provide connection between CT-NET via the LA County IEN, it is very important for Caltrans to be a stakeholder.
2.	The following items were identified to be included in the existing conditions analysis: • LADOT's Metro Rapid existing and future routes (the closest route to the study area is along La Brea) • MTA BSP route along Crenshaw Boulevard • Lincoln Boulevard Corridor Study (currently on hold) • South Bay Cities Council of Governments Railroad Study
3.	It was noted that it is preferred for projects to be deployed as soon as possible instead of conducting additional studies.
5.	Some of the beach communities currently provide "beach cameras" along key locations. These cameras should be considered as a tool to show images of parking activities via the City web-sites and the El Segundo Project web-site.
6.	Cities of Manhattan Beach and Redondo Beach identified Aviation and Sepulveda Boulevards as major corridors (hot spots) that should be considered for enhancements. The following improvements are currently planned along Aviation Boulevard

	Items Discussed
	• Improvements are currently planned for the intersection of PCH at Aviation. • Corridor widening and intersection improvements are planned for Aviation Boulevard between Marine and Rosecrans.
7.	Stakeholder operational goals and objectives identified by the group are: • Think globally, act locally – pay attention to external interfaces (with agencies outside the project boundaries). • Services to be included to the early deployment projects should include access to: - Linking the MTA trip planner (http://mtaweb6.mta.net/) that provides transit planning system regardless of the service provider (TransitView). - South Bay Cities COG traffic alert system. This map will also provide information (i.e. construction information and lane closures) provided by the utility companies • Do to the many special events and tourist nature of the area, need to provide traveler information, particularly parking lot availability, on weekends or during special events in Redondo Beach and Manhattan Beach • Sepulveda signal timing should be coordinated with Caltrans • Deployment of all improvements within five years • Focus on "segmental" improvements • Provide solutions that are short, concise, and not complicated • Hot spots or locations that require further review for improvements are: - Aviation and Sepulveda Boulevards (Redondo Beach and Manhattan Beach) – provide more CCTV cameras for surveillance. - Vista del Mar (El Segundo) - Rendondo Beach Avenue at Manhattan Beach Boulevard and at Marine (Redondo Beach) - Marine (Manhattan Beach) - I-405 / Inglewood Avenue freeway interchange - Rosecrans / Sepulveda - I-405 / El Segundo Boulevard freeway interchange - Imperial Highway - Imperial Highway off-ramp (corporate centers) - Parking in Hermosa Beach is a major issue (information system) • Transit features to be considered for inclusion in TransitView: - Bus routes - Schedules - Map display location of bus - Coordinate different bus lines for passenger transfer using GPS locaters/transponders - Use transit kiosks for traveler information

EL SEGUNDO ITS PROJECT

August 20, 2003 (2:00 - 4:00 PM) PRIVATE STAKEHOLDER MEETING NOTES

ATTENDEES	COMPANY/AGENCY	PHONE	FAX	EMAIL
Debra Hill	Computer Sciences	310-615-1762	310-640-1537	Dhill6@csc.com
Jerry Saunders	Continental Development Corp	310-640-1520	310-414-9279	jsaunders@continentaldevelopment.com
Don Camph	ESEA	310-417-6660	310-417-6670	dcamph@aol.com
William Mason	Honeywell	310-542-9172	310-542-9172	Wtmason2@aol.com
Abbas Mohaddes	Iteris / MMA	714-780-7285	714-780-7287	akm@iteris.com
Ramin Massoumi	Iteris / MMA	714-780-7719	714-780-7287	rmm@iteris.com
Jeff Pletyak	LA County DPW	626-300-4757	626-300-4736	jplety@dpw.co.la.ca.us
Robert Yates	LACMTA	213-922-3096	213-922-3096	yatesr@mta.net
Corinne Murat	Mattel	310-252-6628	310-252-4443	Corinne.murat@mattel.com
Kassidy Jones	Northrop Grumman	310-332-6946	310-332-3486	Joneska3@ngc.com
Todd Gerstemberger	Northrop Grumman	310-332-3777	310-332-3020	gerstto@northropgrumman.com

PREPARED BY: Abbas Mohaddes / Ramin Massoumi, Iteris, Inc.

DATE: August 22, 2003

The following summarizes the items discussed at the meeting:

	Items Discussed
1.	There are regular ride-share meetings between the ESEA members (approximately one dozen organizations are involved in these meetings). It was suggested that these meetings would be an ideal arena to present the proposed El Segundo Area ITS early deployment projects and the ride-share coordinators could represent the different employers.
2.	Company newsletters and/or Intranet are ideal avenues to advertise traveler information services to the area employees.
3.	Continental Development Corporation would like to reach out to their tenants and provide traveler information to them. ESEA businesses would accept the proposal to incorporate CommunityView into their corporate Intranets.
4.	In order to reach out to the community, it would be a good idea to provide traveler information to emergency services providers (i.e. ambulance, fire, police).
5.	Initially, the traveler information will be provided for freeways in Los Angeles County. As the system expands beyond its initial demostration, arterials data will then be added.
6.	Due to the nature of some of the businesses in the area (defense) and national security concerns/regulations set forth by the Department of Homeland Security, there is high interest by the ESEA businesses to use the CCTV cameras deployed by the ITS project to provide closer surveillance of the area (including the roadways). However, the group has to be sensitive to potential privacy and video sharing concerns.
7.	Once the specifics of the early deployment projects have been identified and the business plan(s) developed, the projects will be presented to the ESEA members. This business plan will include the marketing and outreach plan and potential initial users of the system

	Items Discussed
8.	The ESEA stakeholders requested a demonstration project that includes a few of the arterials such as Aviation, Sepulveda, and Rosecrans. This project could include optimized traffic signal synchronization integrated with video surveillance and motorist information system (i.e. changeable message signs).
9.	Outreach efforts to residents should recognize ESEA businesses as a project stakeholder along with the public agencies.
10.	Initial users of CommuteView should be employees who commute to work via freeways.

EL SEGUNDO ITS PROJECT

August 13, 2003 - MEETING NOTES

ATTENDEES	COMPANY/AGENCY	PHONE	EMAIL
Abbas Mohaddes	Iteris / MMA	714-780-7285	akm@iteris.com
Jackie Bacharach	SBCCOG	714-780-7719	rmm@iteris.com

PREPARED BY: Abbas Mohaddes

DATE: August 13, 2003

The following summarizes the items discussed at the meeting:

Items Discussed
• Would like to see the ATIS via Cable TV service, as it benefits everyone. • MAX transit is suggested to be added to the stakeholders list as they have a significant service throughout the South Bay area • COG Traffic Alert should be linked to/interfaced with when developing the ATIS service • I-405 and Rosecrans reports should be reviewed and recommendations considered for this effort. • Would be nice to prepare a "one page" status report (perhaps quarterly) to be distributed at the IWG meetings providing the members with the status of the project. • It was agreed to have follow up briefings at the IWG meeting on this project.

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EL SEGUNDO ITS PROJECT

August 27, 2003 (10:30 - 11:15 PM) – CITY OF INGLEWOOD MEETING NOTES

ATTENDEES	COMPANY/AGENCY	PHONE	EMAIL
Charng Chen	City of Inglewood	310-412-4316	cchen@cityofinglewood.org
Abi Mogharabi	Iteris / MMA	714-780-7711	axm@iteris.com
Ramin Massoumi	Iteris / MMA	714-780-7719	rmm@iteris.com

PREPARED BY: Ramin Massoumi, Iteris, Inc.

DATE: August 27, 2003

The following summarizes the items discussed at the meeting:

	Items Discussed
1.	The City of Inglewood provides connectivity between I-405 and I-105 to the north along major regional corridors. The City is the only agency in the South Bay that has an existing advanced ITS system.
2.	A new transit station/transfer point has been opened in the City of Inglewood at Hawthrone/La Brea Boulevard. The City is currently working with MTA to develop/expand this facility to a regional transit facility. Should incorporate traveler information into this transit facility.
3.	On going projects in the City of Inglewood: • MTA's Bus Signal Priority Pilot Project is currently under deployment along Crenshaw Boulevard. • The City is currently expanding its communication (fiber optic) network to support its expanding ITS infrastructure. • The City is working with LA County to provide linkage via the IEN.
4.	Future planned / proposed projects in the City of Inglewood: • LAWA is planning to improve Century Boulevard (La Cienega to Crenshaw Boulevard) to improve access to LAX. The City of Inglewood has received $10 M to improve Century Boulevard as part of this "Gateway to LAX" project. The city has also applied for $1.8 M for an automated incident management system along Century Boulevard (2003 call for projects). • The City's long range plans have designated La Cienega Boulevard (Route 258) for conversion to an expressway between I-405 and SR-101. The first phase of the improvements will be between I-405 and I-10. The goal of this project is to enhance mobility in the region. • Enhancements along La Brea Avenue are planned to improve access to I-10. • The South Bay ITS Project (Part III) has identified City of Inglewood as a candidate sub-regional TMC for the region.

EL SEGUNDO ITS PROJECT

September 2, 2003 (1:30 - 2:30 PM) CITY OF LAWNDALE MEETING NOTES

ATTENDEES	COMPANY/AGENCY	PHONE	EMAIL
Blane Frandsen	City of Lawndale	310-973-3260	bfrandsen@lawndalecity.org
Jeff Pletyak	LA County DPW	626-300-4757	jplety@dpw.co.la.ca.us
Ramin Massoumi	Iteris / MMA	714-780-7719	rmm@iteris.com

PREPARED BY: Ramin Massoumi, Iteris, Inc.

DATE: September 4, 2003

The following summarizes the items discussed at the meeting:

	Items Discussed
1.	The City recently installed a new changeable message sign (CMS) or electronic message center at the intersection of Hawthorne Boulevard and 147th Street. The intent of this electronic sign is to display messages on behalf of local groups to the citizens of Lawndale.
2.	The City recently installed empty communication conduit along: • Hawthorne Blvd: Between Rosecrans Avenue and Artesia Boulevard • Manhattan Beach Blvd: Between Inglewood Avenue and Prairie Avenue The City also has plans of providing empty conduit along Hawthorne Boulevard between Redondo Beach Boulevard and Rosecrans Avenue.
3.	The El Segundo ITS Project study corridors should be expanded to cover the entire length of the corridor within the City of Lawndale boundaries.
4.	The major corridor in the City is Rosecrans Avenue as it is the primary access to I-405.
5.	The City of Lawndale's local cable access channel is 22 for the early deployment project (CommunityView – Cable).
6.	City staff are interested in this project, however, due to low available funds and low staff availability, they would like to minimize the potential costs this project might have to the City
7.	The City currently has a shuttle service (Lawndale Beat) and Access Services (operated by the MTA).
8.	The City and County will be working on a signal synchronization project along Hawthorne Boulevard.
9.	Hawthorne and Manhattan Beach Boulevards were recently resurfaced and would like to minimize damage to the pavement if additional system detectors are needed.
10.	Planned projects: • Marine Avenue resurfacing in October 2003. This would be an ideal time to install any system detectors. • Under grounding of existing utilities along Marine Avenue. This project will provide the City with one empty conduit. Southern California Edison's contact for this project is Peter Traun (626) 253-4337.
11.	The City needs would like to provide parking availability information to motorists (especially for the parking facilities located along the median of Hawthorne Boulevard)

EL SEGUNDO ITS PROJECT

September 2, 2003 (10:00 - 11:30 AM) CITY OF EL SEGUNDO MEETING NOTES

ATTENDEES	COMPANY/AGENCY	PHONE	EMAIL
Bellur Devaraj	City of El Segundo	310-524-2358	bdevaraj@elsegundo.org
Jeff Pletyak	LA County DPW	626-300-4757	jplety@dpw.co.la.ca.us
Ramin Massoumi	Iteris / MMA	714-780-7719	rmm@iteris.com

PREPARED BY: Ramin Massoumi, Iteris, Inc.

DATE: September 4, 2003

The following summarizes the items discussed at the meeting:

	Items Discussed
1.	City suggested expanding the study area to capture those that live in other regions of the South Bay and work in the El Segundo area (i.e. those that live in Torrance and commute to El Segundo for work).
2.	Need to develop a successful public outreach plan that would include: • Discussions with the local employers • Presentation(s) to the city council • Development of a brochures to distribute to the public
3.	As part of the early deployment project (CommunityView – Cable), it will be important to show a benefit to the cable company in order to get the needed coverage and support from them.
4.	The City of El Segundo has signed a letter of support for $200,000 for the El Segundo ITS Project. LA County's intent is to first utilize the MTA funding for this project prior to using the funding that has been provided by the local agencies. Jeff Pletyak will provide Bellur Devaraj a summary of the funding agreements and call for project illustrating the City's $200,000 support.
5.	The City of El Segundo currently has a lunch time shuttle system and would like the proposed early deployment project ShuttleCall and/or Smart Shuttle to supplement this.
6.	In order to cut down on emergency vehicle response time and improve homeland security, it would be important to inform the various City emergency staff (i.e. police, fire, ambulance, etc) of the El Segundo ITS Project and the early deployment projects.
7.	Addition of a parking management system will be useful.
8.	Users of this project should include: • Emergency services • City of Torrance • Large employers • Local residents • Air Force base
9.	Corridors of importance to the City of El Segundo include: • Sepulveda Boulevard & I-105 as major access points to LAX • Vista Del Mar

EL SEGUNDO ITS PROJECT

August 29, 2003 – CITY OF HAWTHORNE PHONE DISCUSSION NOTES

ATTENDEES	COMPANY/AGENCY	PHONE	EMAIL
Clint Smith	City of Hawthorne	310-970-7961	
Ramin Massoumi	Iteris / MMA	714-780-7719	rmm@iteris.com

PREPARED BY: Ramin Massoumi, Iteris, Inc.

DATE: August 29, 2003

The following summarizes the items discussed during the phone conversation:

	Items Discussed
1.	The City is very open and excited about the potential benefits of the El Segundo ITS Project.
2.	The City would like to emphasize their need for signal interconnect and a traffic control system in order to provide a more efficient flow of traffic.
3.	The following roadway improvement projects are currently planned in the City of Hawthorne: • Enhancements to the intersection of Rosecrans Avenue/Aviation Boulevard including the addition of double left turn lanes. Project to be put to bid by March 2004. • Widening of Rosecrans Avenue between Douglass St and Hindry Avenue (one extra lane in each direction) • Widening of Aviation Boulevard between Hawaii St and Manhattan Beach Boulevard (one extra lane in each direction).

APPENDIX B
Individual Public Agency Figures

APPENDIX C
Summary of Signalized Intersection along the Study Corridors

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
190th / Victoria S	Anza Av	Redondo Bch	Redondo Beach	
190th / Victoria S	Harkness Ln	Redondo Bch	Redondo Beach	
190th / Victoria S	Inglewood Av	Redondo Bch	Redondo Beach	
190th / Victoria S	Meyer Ln	Redondo Bch	Redondo Beach	
190th / Victoria S	Prospect Av	Redondo Bch	Redondo Beach	
190th / Victoria S	Rindge Ln	Redondo Bch	Redondo Beach	
Arbor Vitae St	Eucalyptus Av	Inglewood	Inglewood	
Arbor Vitae St	Grevillea Av	Inglewood	Inglewood	
Arbor Vitae St	Myrtle Av	Inglewood	Inglewood	
Arbor Vitae St	Oak St	Inglewood	Inglewood	
Artesia Bl	Aviation Wy	Redondo Bch	County of LA	Hardwire
Artesia Bl	Felton Ln	Redondo Bch	County of LA	Hardwire
Artesia Bl	Ford Av	Redondo Bch	County of LA	Hardwire
Artesia Bl	Green Ln	Redondo Bch	County of LA	Hardwire
Artesia Bl	Harper Av	Redondo Bch	County of LA	Hardwire
Artesia Bl	Inglewood Av	Redondo Bch	County of LA	Hardwire
Artesia Bl	Kingsdale Av	Redondo Bch	County of LA	Hardwire
Artesia Bl	Mackay Ln	Redondo Bch	County of LA	Hardwire
Artesia Bl	Prospect Av	Manhattan Bch	County of LA	Hardwire
Artesia Bl	Redondo Beach	Redondo Bch	County of LA	Hardwire
Artesia Bl	Rindge Ln	Redondo Bch	County of LA	Hardwire
Artesia Bl	Slauson Ln	Redondo Bch	County of LA	Hardwire
Artesia Bl	Vail Av	Redondo Bch	County of LA	Hardwire
Aviation Bl	135th St	Hawthorne	County of LA	
Aviation Bl	2nd St	Redondo Bch	County of LA	
Aviation Bl	Arbor Vitae S	City of LA	City of LA	Hardwire
Aviation Bl	Artesia Bl	Redondo Bch	County of LA	Hardwire
Aviation Bl	El Segundo Bl	El Segundo	County of LA	
Aviation Bl	Ford Av	Redondo Bch	Redondo Beach	
Aviation Bl	Grant Av	Redondo Bch	Redondo Beach	
Aviation Bl	Hillcrest Bl	Inglewood	Inglewood	
Aviation Bl	Imperial High	City of LA	City of LA	Hardwire
Aviation Bl	Manchester Bl	Inglewood	Inglewood	Hardwire
Aviation Bl	Manhattan Bea	Redondo Bch	County of LA	
Aviation Bl	Marine Av	Hawthorne	County of LA	
Aviation Bl	Rosecrans Av	Hawthorne	County of LA	
Aviation Bl	Space Park Dr	Redondo Bch	County of LA	
Century Bl	5th Av	Inglewood	Inglewood	Hardwire
Century Bl	Club Dr	Inglewood	Inglewood	Hardwire
Century Bl	Crenshaw Bl	Inglewood	Inglewood	Hardwire
Century Bl	Doty Av	Inglewood	Inglewood	Hardwire
Century Bl	Felton Av	Inglewood	Inglewood	Hardwire

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
Century Bl	Fir Av	Inglewood	Inglewood	Hardwire
Century Bl	Freeman Av	Inglewood	Inglewood	Hardwire
Century Bl	Grevillea Av	Inglewood	Inglewood	Hardwire
Century Bl	I-405 East	Inglewood	Inglewood	Hardwire
Century Bl	Inglewood Av	Inglewood	Inglewood	Hardwire
Century Bl	La Brea Av	Inglewood	Inglewood	Hardwire
Century Bl	La Cienega Bl	City of LA	City of LA	Hardwire
Century Bl	Myrtle Av	Inglewood	Inglewood	Hardwire
Century Bl	Prairie Av	Inglewood	Inglewood	Hardwire
Century Bl	Van Ness Av	Inglewood	Inglewood	Hardwire
Century Bl	Woodworth Av	Inglewood	Inglewood	Hardwire
Century Bl	Yukon Av	Inglewood	Inglewood	Hardwire
Crenshaw Bl	104th St	Inglewood	Inglewood	Hardwire
Crenshaw Bl	108th St	Inglewood	Ingelwood	Hardwire
Crenshaw Bl	111th St	Inglewood	Inglewood	Hardwire
Crenshaw Bl	116th St	Inglewood	County of LA	Hardwire
Crenshaw Bl	116th St	Inglewood	County of LA	Hardwire
Crenshaw Bl	118th St	Inglewood	County of LA	Hardwire
Crenshaw Bl	118th St	Inglewood	County of LA	Hardwire
Crenshaw Bl	120th St	Hawthorne	Caltrans	
Crenshaw Bl	120th St	Hawthorne	Caltrans	
Crenshaw Bl	135th St	County of LA	County of LA	
Crenshaw Bl	90th St	Inglewood	Inglewood	Hardwire
Crenshaw Bl	Arbor Vitae S	Inglewood	Inglewood	Hardwire
Crenshaw Bl	El Segundo Bl	Hawthorne	County of LA	
Crenshaw Bl	Entrance 16	Hawthorne	County of LA	
Crenshaw Bl	Hardy St	Inglewood	Inglewood	Hardwire
Crenshaw Bl	Manchester Av	Inglewood	Inglewood	Hardwire
Crenshaw Bl	Northrop	Hawthorne	County of LA	
El Segundo Bl	Chadron Av	Hawthorne	County of LA	
El Segundo Bl	Continental B	El Segundo	County of LA	
El Segundo Bl	Doty Av	Hawthorne	County of LA	
El Segundo Bl	Douglas St	El Segundo	County of LA	
El Segundo Bl	I- 405 North	Caltrans	Caltrans	
El Segundo Bl	I-405 NB	County of LA	Caltrans	
El Segundo Bl	Illinois St	El Segundo	County of LA	
El Segundo Bl	Kornblun Av	Hawthorne	County of LA	
El Segundo Bl	Nash St	El Segundo	County of LA	
El Segundo Bl	Prairie Av	Hawthorne	County of LA	
El Segundo Bl	Ramona Av	Hawthorne	County of LA	
El Segundo Bl	Van Ness Av	Hawthorne	County of LA	
El Segundo Bl	Washington Av	Hawthorne	County of LA	

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
El Segundo Bl	Wilkie Av	Hawthorne	County of LA	
El Segundo Bl	Yukon Av	Hawthorne	County of LA	
Hawthorne/La Brea	104th St	County of LA	County of LA	
Hawthorne/La Brea	111th St	County of LA	County of LA	
Hawthorne/La Brea	118th St	Hawthorne	County of LA	
Hawthorne/La Brea	119th St	Hawthorne	County of LA	
Hawthorne/La Brea	120th St	Hawthorne	County of LA	
Hawthorne/La Brea	132nd St	Hawthorne	County of LA	
Hawthorne/La Brea	135th St	Hawthorne	County of LA	
Hawthorne/La Brea	138th St	Hawthorne	County of LA	
Hawthorne/La Brea	147th St	Lawndale	County of LA	
Hawthorne/La Brea	154th St	Lawndale	County of LA	
Hawthorne/La Brea	162nd St	Caltrans	Caltrans	Hardwire
Hawthorne/La Brea	166th St	County of LA	County of LA	Hardwire
Hawthorne/La Brea	169th St	County of LA	County of LA	Hardwire
Hawthorne/La Brea	177th St	Caltrans	Caltrans	Hardwire
Hawthorne/La Brea	182nd St	Caltrans	Caltrans	Hardwire
Hawthorne/La Brea	190th / Victo	Caltrans	Caltrans	Hardwire
Hawthorne/La Brea	Arbor Vitae S	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Artesia Bl	Caltrans	Caltrans	Hardwire
Hawthorne/La Brea	Beach Av	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Broadway	Hawthorne	County of LA	
Hawthorne/La Brea	Centinela Av	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	El Segundo Bl	Hawthorne	County of LA	
Hawthorne/La Brea	Florence Av	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Hardy St	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Hazel St	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Hillcrest Bl	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Hyde Park Bl	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Imperial Hwy	Hawthorne	County of LA	
Hawthorne/La Brea	Kelso St	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Manchester Bl	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Manhattan Bea	Lawndale	County of LA	Hardwire
Hawthorne/La Brea	Marine Av	Lawndale	County of LA	
Hawthorne/La Brea	North Mall En	Hawthorne	County of LA	
Hawthorne/La Brea	North of I-40	Caltrans	Caltrans	Hardwire
Hawthorne/La Brea	Nutwood St	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Plymouth St	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Queen St	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Redondo Beach	Caltrans	Caltrans	Hardwire
Hawthorne/La Brea	Regent St	Inglewood	Inglewood	Hardwire
Hawthorne/La Brea	Rosecrans Av	Hawthorne	County of LA	

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
Hawthorne/La Brea	Spruce Av	Inglewood	Inglewood	Hardwire
Imperial Hwy	Ardath Av	Inglewood	Inglewood	Hardwire
Imperial Hwy	California St	City of LA	City of LA	Hardwire
Imperial Hwy	Crenshaw Bl	Inglewood	Inglewood	Hardwire
Imperial Hwy	Doty Ave	Inglewood	Inglewood	Hardwire
Imperial Hwy	Doty Ave	Inglewood	Inglewood	Hardwire
Imperial Hwy	Douglas St	City of LA	City of LA	Hardwire
Imperial Hwy	Freeman Ave	Hawthorne	County of LA	
Imperial Hwy	Hughes Wy	City of LA	City of LA	Hardwire
Imperial Hwy	I-105 Ramp	City of LA	City of LA	
Imperial Hwy	I-105 Termina	City of LA	City of LA	Hardwire
Imperial Hwy	Inglewood Ave	Hawthorne	County of LA	
Imperial Hwy	Kilrory Cente	City of LA	City of LA	Hardwire
Imperial Hwy	Lemoli Av	Inglewood	Inglewood	Hardwire
Imperial Hwy	Main St	City of LA	City of LA	Hardwire
Imperial Hwy	Nash St	City of LA	City of LA	Hardwire
Imperial Hwy	Pershing Dr	City of LA	City of LA	Hardwire
Imperial Hwy	Prairie Ave	Inglewood	Inglewood	Hardwire
Imperial Hwy	Prairie Ave	Inglewood	Inglewood	Hardwire
Imperial Hwy	Ramona Ave	Hawthorne	County of LA	
Imperial Hwy	Van Ness Av	County of LA	County of LA	
Imperial Hwy	Vista Del Mar	City of LA	City of LA	Hardwire
Imperial Hwy	Yukon Av	Inglewood	Inglewood	Hardwire
Inglewood Av	118th St	Hawthorne	County of LA	
Inglewood Av	120th St	Hawthorne	County of LA	
Inglewood Av	130th St	Hawthorne	County of LA	
Inglewood Av	135th St	County of LA	County of LA	
Inglewood Av	147th St	Hawthorne	County of LA	
Inglewood Av	166th St	Redondo Bch	County of LA	
Inglewood Av	182nd St	Redondo Bch	Redondo Beach	
Inglewood Av	A. B. Plaza	Redondo Bch	County of LA	
Inglewood Av	Arbor Vitae S	Inglewood	Inglewood	
Inglewood Av	Broadway	Hawthorne	County of LA	
Inglewood Av	Hillcrest Bl	Inglewood	Inglewood	
Inglewood Av	I-405 North	Caltrans	Caltrans	
Inglewood Av	I-405 South	Caltrans	Caltrans	
Inglewood Av	Manhattan Bea	Redondo Bch	County of LA	
Inglewood Av	Marine Av	Redondo Bch	County of LA	
Inglewood Av	Rolston St	Redondo Bch	Redondo Beach	
Inglewood Av	Rosecrans Av	Hawthorne	County of LA	
La Cienega Bl	120th St	County of LA	County of LA	
La Cienega Bl	97th Pl	City of LA	City of LA	Hardwire

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
La Cienega Bl	Arbor Vitae S	Inglewood	Inglewood	Hardwire
La Cienega Bl	Centinela Av	City of LA	City of LA	Hardwire
La Cienega Bl	El Segundo Bl	County of LA	County of LA	
La Cienega Bl	Hillcrest Bl	Inglewood	Inglewood	Hardwire
La Cienega Bl	Imperial Hwy	City of LA	City of LA	Hardwire
La Cienega Bl	Manchester Bl	Inglewood	Inglewood	Hardwire
La Cienega Bl	Olive St	Inglewood	Inglewood	Hardwire
La Cienega Bl	Pacific Conco	County of LA	County of LA	
La Cienega Bl	W. Florence A	Inglewood	Inglewood	Hardwire
Manchester	11th Av	Inglewood	Inglewood	Hardwire
Manchester	5th Av	Inglewood	Inglewood	Hardwire
Manchester	7th Av	Inglewood	Inglewood	Hardwire
Manchester	8th Av	Inglewood	Inglewood	Hardwire
Manchester	Ash Av	Inglewood	Inglewood	Hardwire
Manchester	Calton Dr	Inglewood	Inglewood	Hardwire
Manchester	Eucalyptus Av	Inglewood	Inglewood	Hardwire
Manchester	Fir Av	Inglewood	Inglewood	Hardwire
Manchester	Grevillea Av	Inglewood	Inglewood	Hardwire
Manchester	Hillcrest Bl	Inglewood	Inglewood	Hardwire
Manchester	Hindry Av	Inglewood	Inglewood	Hardwire
Manchester	Inglewood Av	Inglewood	Inglewood	Hardwire
Manchester	Kareem Ct	Inglewood	Inglewood	Hardwire
Manchester	Locust St	Inglewood	Inglewood	Hardwire
Manchester	Market St	Inglewood	Inglewood	Hardwire
Manchester	Oak St	Inglewood	Inglewood	Hardwire
Manchester	Prairie Av	Inglewood	Inglewood	Hardwire
Manchester	Spruce Av	Inglewood	Inglewood	Hardwire
Manchester	Van Ness Av	City of LA	City of LA	Hardwire
Manchester	West Bl	Inglewood	Inglewood	Hardwire
Manhattan Beach Bl	Ardmore Av	Manhattan Bch	County of LA	
Manhattan Beach Bl	Doolittle Dr	Redondo Bch	Redondo Beach	
Manhattan Beach Bl	Dow Av	Redondo Bch	Redondo Beach	
Manhattan Beach Bl	Firmona Av	Lawndale	County of LA	
Manhattan Beach Bl	Freeman Av	Lawndale	County of LA	
Manhattan Beach Bl	Highland Av	Manhattan Bch	County of LA	
Manhattan Beach Bl	Mall Entrance	Manhattan Bch	County of LA	
Manhattan Beach Bl	Manhattan Av	Manhattan Bch	County of LA	
Manhattan Beach Bl	Meadow Av	Manhattan Bch	County of LA	
Manhattan Beach Bl	Pacific Av	Manhattan Bch	County of LA	
Manhattan Beach Bl	Peck Av	Manhattan Bch	County of LA	
Manhattan Beach Bl	Poinsettia Av	Manhattan Bch	County of LA	
Manhattan Beach Bl	Redondo Av	Manhattan Bch	County of LA	

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
Manhattan Beach Bl	Redondo Beach	Redondo Bch	Redondo Beach	
Manhattan Beach Bl	Rindge Ln	Redondo Bch	Redondo Beach	
Marine Av	Cedar Av	Manhattan Bch	County of LA	
Marine Av	Firmona Av	Lawndale	County of LA	
Marine Av	Freeman Av	Lawndale	County of LA	
Marine Av	Meadows Av	Manhattan Bch	County of LA	
Marine Av	Peck Av	Manhattan Bch	County of LA	
Marine Av	Redondo Av	Manhattan Bch	County of LA	
Marine Av	Redondo Beach	Hawthorne	County of LA	
Marine Av	Transit Park	Redondo Bch	Redondo Beach	
Marine Av	TRW Complex	Hawthorne	County of LA	
PCH/Sepulveda	18th St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	2nd St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	30th St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	33rd St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	8th St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Anita St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Artesia Bl	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Avenue C	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Avenue F	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Avenue H	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Beryl St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Carnelian St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Catalina St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Diamond St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	El Segundo Bl	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Elena Av	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Emerald St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Garnet St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Grand Av	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Hughes Wy	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Imperial Hwy	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Irena Av	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Knob Hill	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Longfellow Av	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Manhattan Bea	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Maple Av	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Marine Av	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Mariposa Av	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Palos Verdes	Torrance	Caltrans	Hardwire
PCH/Sepulveda	Prospect Av	Torrance	Caltrans	Hardwire
PCH/Sepulveda	Rosecrans Av	Caltrans	Caltrans	Hardwire

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
PCH/Sepulveda	Ruby St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Sapphire St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Torrance Bl	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Vincent St	Caltrans	Caltrans	Hardwire
PCH/Sepulveda	Vista Del Par	Torrance	Caltrans	Hardwire
PCH/Sepulveda	Walnut Av	Caltrans	Caltrans	Hardwire
Prairie Av	102nd St	Inglewood	Inglewood	Hardwire
Prairie Av	104th St	Inglewood	Inglewood	Hardwire
Prairie Av	111th St	Inglewood	Inglewood	Hardwire
Prairie Av	112th St	Inglewood	Inglewood	Hardwire
Prairie Av	118th St	Hawthorne	County of LA	
Prairie Av	120th St	Hawthorne	County of LA	
Prairie Av	132nd St	Hawthorne	County of LA	
Prairie Av	135th St	Hawthorne	County of LA	
Prairie Av	139th St	Hawthorne	County of LA	
Prairie Av	147th St	Hawthorne	County of LA	
Prairie Av	90th St	Inglewood	Inglewood	Hardwire
Prairie Av	Arbor Vitae S	Inglewood	Inglewood	Hardwire
Prairie Av	Carondelet Wy	Inglewood	Inglewood	Hardwire
Prairie Av	Florence Av	Inglewood	Inglewood	Hardwire
Prairie Av	Grace Av	Inglewood	Inglewood	Hardwire
Prairie Av	Hardy St	Inglewood	Inglewood	Hardwire
Prairie Av	Lennox Bl	Inglewood	Inglewood	Hardwire
Prairie Av	Marine Av	Hawthorne	County of LA	
Prairie Av	Northrop Av	Hawthorne	County of LA	
Prairie Av	Regent Av	Inglewood	Inglewood	Hardwire
Redondo Beach Bl	Freeman Av	Torrance	County of LA	
Redondo Beach Bl	Osage Av	Torrance	Caltrans	
Rosecrans Av	Apollo St	Manhattan Bch	County of LA	
Rosecrans Av	Blanche Rd	Manhattan Bch	County of LA	
Rosecrans Av	Cerise Av	Hawthorne	County of LA	
Rosecrans Av	Continental C	Manhattan Bch	County of LA	
Rosecrans Av	Doty Av	Hawthorne	County of LA	
Rosecrans Av	Douglas St	Manhattan Bch	County of LA	
Rosecrans Av	Highland Av	Manhattan Bch	County of LA	
Rosecrans Av	Hindry Av	Hawthorne	County of LA	
Rosecrans Av	Isis Av	Hawthorne	County of LA	
Rosecrans Av	Jefferson Av	Hawthorne	County of LA	
Rosecrans Av	Lemoli Av	Hawthorne	County of LA	
Rosecrans Av	Nash St	Manhattan Bch	County of LA	
Rosecrans Av	Ocean Gate Av	Hawthorne	County of LA	
Rosecrans Av	Pacific Av	Manhattan/ELS	County of LA	

Corridor	Cross Street	Primary Agency	Maintaining Agency	Communication
Rosecrans Av	Prairie Av	Hawthorne	County of LA	
Rosecrans Av	Ramona Av	Hawthorne	County of LA	
Rosecrans Av	Village Dr	Manhattan Bch	County of LA	
Rosecrans Av	Yukon Av	Hawthorne	County of LA	
Torrance Bl	Camino Real	Redondo Bch	Redondo Beach	
Torrance Bl	Francisca Av	Redondo Bch	Redondo Beach	
Torrance Bl	Prospect St	Redondo Bch	Redondo Beach	